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FOR DECISION MAKERS/NOVEMBER 1991

LITTLE SHOPPERS, BIG BUCKS

Savvy Packagers Create Products Just For Kids

Shock Treatment: Cushioning For Electronics

Plan-Ahead Maintenance Cuts Downtime

Blister Machines Help Drugs Thrive

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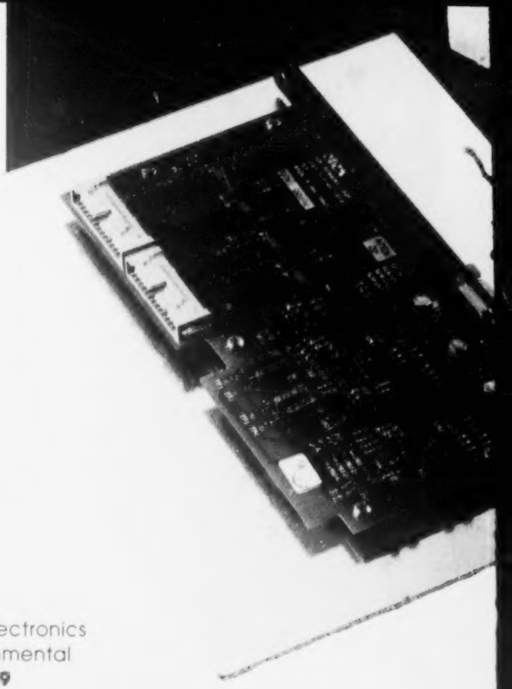

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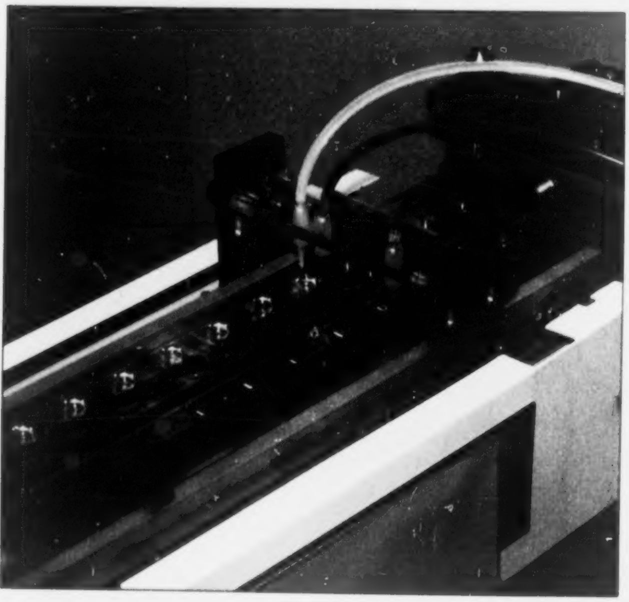

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ENVIRONMENTAL NEWS

Study Suggests Deposits Hamper Curbside Collection

A recently released survey prepared for the National Soft Drink Association suggests that beverage container deposit laws hamper the ability of communities to make curbside recycling programs succeed. The reason: The value of recycled beverage containers forms the economic backbone of many curbside programs, often subsidizing the collection of all the other recyclables.

The survey of components in the solid-waste and recycling streams of two localities—Anne Arundel County in Maryland and the Town of Islip, New York—was performed by consulting firm Gershman, Brickner and Bratton. The Maryland county is a curbside-recycling community; Islip has a deposit law in addition to curbside recycling.

The results were these: The net cost to recycle a ton of solid waste in a curbside program without a deposit law is $117 per ton; to recycle a ton in a system with both programs costs $145. The study also showed that if the deposit law were rescinded in Islip and beverage containers were included in curbside bins, revenues to the local government from the sale of recyclables would be 400% greater.

In a related announcement, the Glass Packaging Institute has released a video promoting the benefits of comprehensive curbside recycling. The theme of "One Stop Shopping, One Stop Recycling" is that forced deposits create consumer confusion and undermine the economic health of the recycling industry by diverting glass.

For more information on the solid-waste survey, circle **240**. To obtain a copy of the video, circle **241**.

HDPE Bottles Become Building Blocks When Empty

From Olive Hill, Ky., comes a quirky FDA-approved high-density polyethylene container that is made to be reused. The half-gallon and gallon-sized VessLBloX are available in a number of colors and are touted as a building-block toy for kids after their initial use as containers. Blue, green, red, yellow and white are available.

Room dividers, planters, storage buildings, greenhouses, rafts, dog houses and other structures can also be made with the interlocking bottles. According to the manufacturer, roof and door accessories are even available for really serious young (or middle-aged) builders.

For more information about the containers, circle **242**.

FDA-approved high-density polyethylene half-gallon and gallon bottles have an afterlife as colorful building blocks.

Rural Recycling Bows In Tenn.

One of the nation's first rural curbside recycling programs will be introduced in Hamblen County, Tenn., on January 1, 1992.

The Morristown-Hamblen Keep America Beautiful System is an affiliate of Keep America Beautiful Inc. It developed the recycling program as "an outgrowth of the current voluntary drop-off program at several school locations," according to Sami Barile, area executive coordinator.

New state law waste-reduction guidelines are aimed at the national goal of a 25% reduction in solid waste by December 31, 1995. The county decided to begin implementing a plan.

A bag collection method, separating newsprint from other recyclables, is planned. Every other week on regular trash days a second truck will pick up recyclables and both city and county collectors will take them to a central location.

Hamblen County residents are also the first in the state to have curbside garbage pickup provided by local government.

Plastic Recycling Set To Spurt By 2000—Study

As many as 3.6 billion pounds of plastic resins will be recycled by the year 2000—or three times the amount recycled in 1990. This according to a study just released by Business Communications Co., a market research firm in Norwalk, Conn.

Stocks of potentially recyclable materials will also continue to grow according to the study, entitled *The Secondary Plastics Recycling Business*. By 2000, stocks of potentially recyclable plastics will total 55.7 billion pounds, up from 36.6 billion pounds in 1990.

Not surprisingly, recycling of polyethylene terephthalate and high-density polyethylene will increase the most. PET, for instance, was recycled at a rate of 24.1% in 1990. That rate will increase to 35.9% by the year 2000, or 1.4 billion pounds recycled. But the study also indicates that low-density polyethylene will reach a 2.1% recycling rate by 2000. And polyurethane, which was not recycled at all in 1990, will experience a reuse rate of 8.1% by the year 2000 as producers and converters initiate recycling strategies.

For more information about the study, circle **243**.

RECYCLED RESIN PRODUCTION, 1990-2000
(Millions of pounds)

	1990			2000		
	Potentially recyclable	Recycled stocks	Recycling rate (%)	Potentially recyclable	Recycled stocks	Recycling rate (%)
PET	1,968	475	24.1	3,731	1,340	35.9
HDPE	7,074	175	2.5	10,641	967	9.1
LDPE	9,739	108	1.1	13,894	285	2.1
PP	5,510	155	2.8	8,399	389	4.6
PVC	5,656	62	1.1	9,156	140	1.5
PS	4,646	80	1.7	6,477	190	2.9
PUR	2,003	0	0.0	3,438	280	8.1
Total	36,596	1,055	2.9	55,736	3,591	6.4

Source: Business Communications Co., Norwalk, Conn

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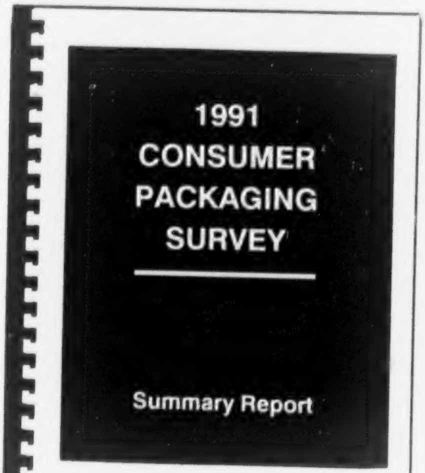

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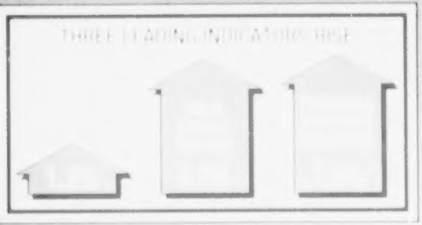
ANNUAL FORECAST ISSUE

Expert Panelists See Better Days Ahead



Cover Story: Color Guides Keep Packages Sparkling

New Accuracy Comes To Dry Fillers

Technical Changes Boost Paperboard Performance

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'92

THIRD ANNUAL FORECAST

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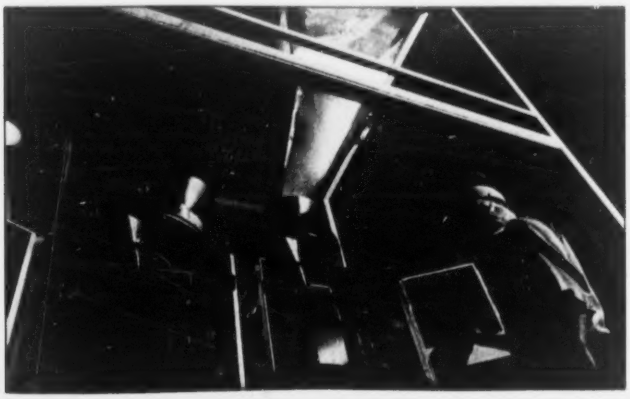
Dry fillers utilize electronics to help improve accuracy and increase speed. Page **50**



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NEXT MONTH

What makes a drug jump off the shelf? The fact remains that stores stock what sells. Which packaging details give your product an edge with leading pharmaceutical retailers?

Organoleptics: the war for better flavor. In the great struggle to make food packaging materials flavor-neutral, important battles are being won.

Line managers face the challenge of worker training. Today's sophisticated packaging machines call for skilled operators, but where do you find them?

Plastics recycling hits its stride. The pages of PACKAGING Magazine have recorded the progress of plastics recycling from a few experiments in 1987 to widespread success today.

COMING SOON

✓ Ever wondered what all those bright kids enrolled in university packaging programs have been brainstorming about? Find out in our report on "Wild Ideas From Students."

✓ In describing packaging that's doing its part to preserve the environment, terms like "green" and "friendly" have been used with varying success. PACKAGING now coins a new term—Low-Impact Packaging—and showcases memorable examples of source reduction.

Alberto
Alberto

Package design balances European flair and American convenience. Page **18**

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PACKAGING CONFIDENCE INDEX

Though optimism wanes, there's reason for hope

Kermit Baker
Chief Economist
Cahners Economics

A new measure of business expectations for the packaging industry has been developed by Cahners Economics and PACKAGING Magazine: The PACKAGING Magazine Business Confidence Index. We'll be reporting current changes in the index each month right here.

This exclusive index measures business confidence as indicated by actual plans of operating managers in consumer and manufacturing industries.

Not-so-great expectations

Expectations are usually considered a leading indicator of performance, so if businesses continue to feel positive about business conditions, spending will follow. The index tracks changes in hiring, production, marketing, new product introduction, inventories, capital spending, and R&D.

The latest, continued gloomy, reading for December 1991, stood at 57.1, dipping from 57.9 in November. Although confidence in general appears to have dropped, any reading over 50 is still a positive sign.

Most still plan to expand

Readings at these levels still indicate that most businesses plan to expand operations. However, a decline in the index means that business plans softened a bit in December in response to less-favorable business conditions or concern over future business prospects.

Overall, while businesses continue to plan for improved conditions, optimism is waning. Between June 1991—about the time the current expansion began—and the latest reading in December, the index dropped a total of 6.2 points. The highest reading came in August when the index measured 65.5.

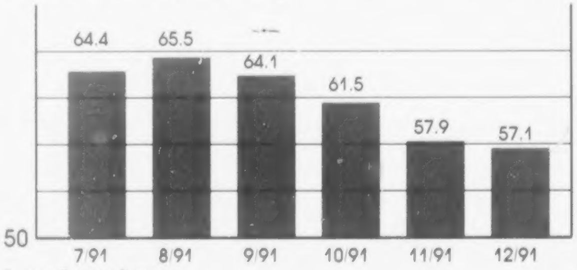
A revision of disposable income figures, based on 1987 dollars, has shown that real disposable income weakened in 1991 and is forecast to be down 0.2% compared to 1990. Disposable income in 1992 is anticipated to grow 0.8%—a positive sign for future consumer spending.

Grocery store sales have been lagging recently and ended 1991 down 0.2%, but are expected to climb a real 0.6% in 1992. Food shipments, which have been slowing lately, are forecast to pick up steam by the second quarter of 1992 and grow 3.0% by the end of the year.

Research assistance:
Lori Brassaw, Economist
Cahners Economics

BUSINESS CONFIDENCE SLIPS AGAIN IN DECEMBER

Although the PACKAGING Business Confidence Index fell for the fourth straight month in December 1991, it remained above 50, reflecting more optimism than pessimism among members of the survey group.



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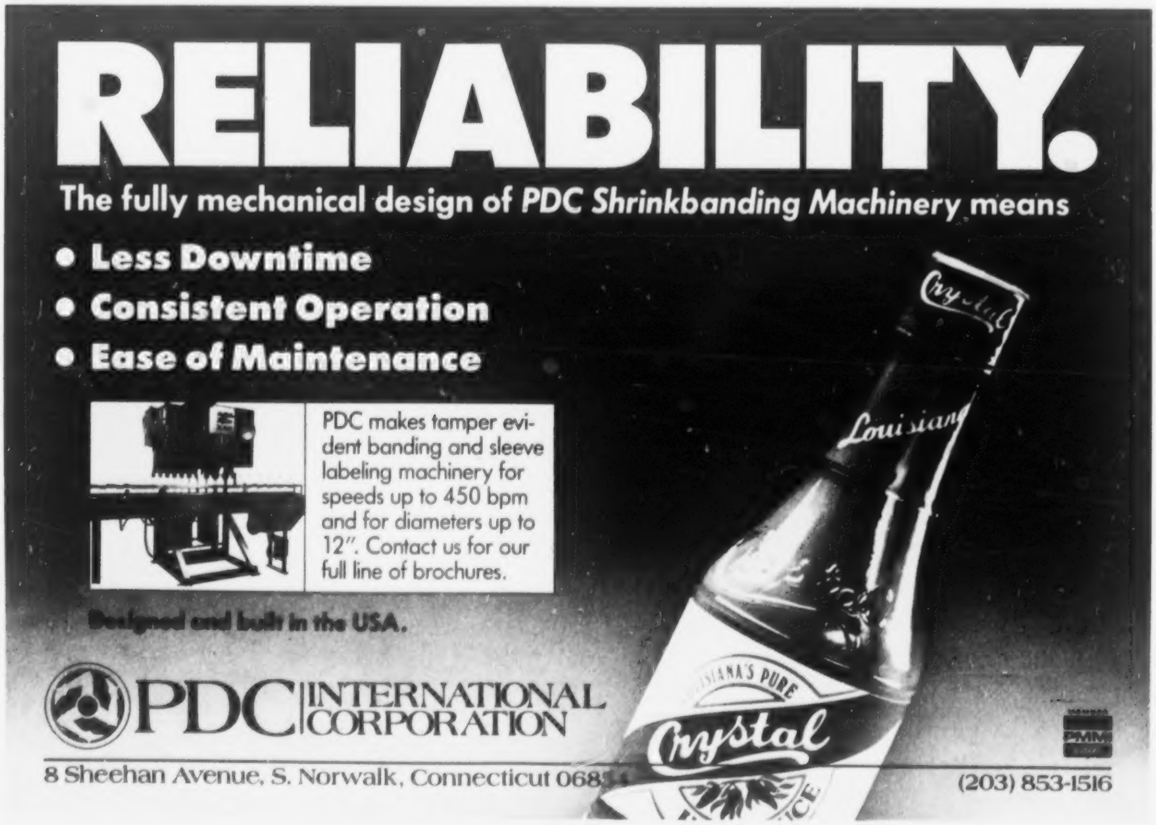

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ENVIRONMENTAL NEWS

500 Solid Waste Bills Introduced In 1991

Lawmakers in 48 states brushed off economic recession and war in the Persian Gulf to introduce more than 500 solid-waste management proposals involving the plastics industry in 1991. The level of state legislative activity equaled 1990's record pace, according to the Council For Solid Waste Solutions.

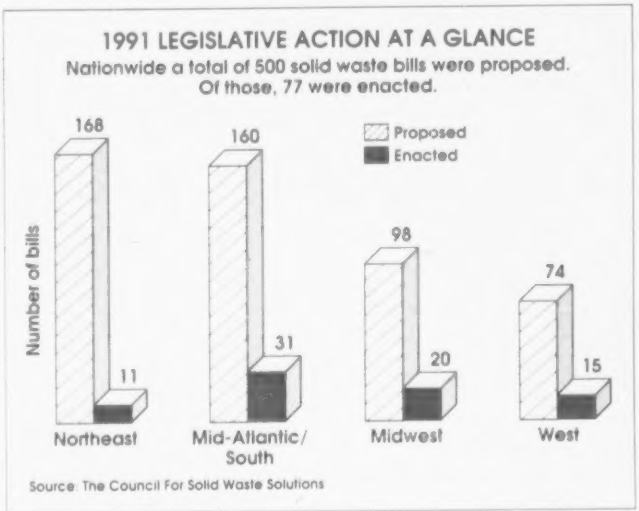
In 1991, legislative pressures on the plastics industry shifted from product bans to proposals that would impose strict recycling-rate and recycled-content criteria on entire categories of packaging.

The Council's Government Affairs Dept. tracked each of the 500 proposals introduced in 48 state legislatures, four more states than in 1990. A close analysis of these proposals, including those that were enacted into law, confirms that the plastics industry has again succeeded in protecting the marketplace from severe, state-imposed restrictions on its products.

Specifically, 42 bills were introduced at the state level mandating recycled content for packaging and two proposals were passed affecting plastics packaging. Nationwide, 104 bills were introduced requiring that plastics meet a recyclability or degradability standard; 12 of those have been enacted.

Lawmakers are apparently becoming aware of the limitations of degradability mandates in easing the solid-waste crisis. This may account for the fact that only 83 proposals calling for degradable plastics were introduced in state legislatures in 1991, compared with 190 last year.

"Even though the Council again succeeded in protecting the marketplace from severe, state-imposed restrictions on plastic products, legislative intensity is expected to reach its crest during 1992," says Rodney Lowman, CSWS vice president of government affairs.


1991 LEGISLATIVE ACTION AT A GLANCE

Nationwide a total of 500 solid waste bills were proposed. Of those, 77 were enacted.

Source: The Council For Solid Waste Solutions

New Jersey PS Recycling Center Is East's Largest

The largest polystyrene recycling plant in the east was recently opened in Bridgeport, N.J., by the National Polystyrene Recycling Co. and CRInc. Recycling. The new plant will recycle polystyrene from the entire eastern seaboard.

The facility, operated by CRInc., has the capacity to annually recycle 13 million pounds of post-consumer polystyrene foodservice and non-food packaging such as foam cushioning.

"With the opening of our Bridgeport facility, NPRC significantly increases the amount of polystyrene that can be recycled in the East," says E. James Schneiders, president. "We are working closely with the foodservice and protective-packaging industries . . . to build the volume necessary to operate the plant at capacity.

"Our initial objective is to increase the number of existing polystyrene recycling programs by focusing our attention on the largest users of polystyrene, such as schools, hospitals, restaurants and businesses, as well as the producers of polystyrene packaging materials," says Schneiders.

Recycling earned these teens $3,000 for a working vacation helping the poor, plus top prize in Alcoa's annual aluminum recycling contest

Teens Win Cash For Good Recycling Deeds

Teens recycling to help the poor earned top prize in this year's Alcoa Best Recycling Story Contest. The eight-year-old contest evaluated more than 200 entries in the categories of "Best Individual Recycling Story" and "Best Municipal Recycling Story."

A group of 27 teens from the Asbury Methodist Church in Little Rock, Ark., nabbed the individual recycling prize of $500 by recycling over $3,000 worth of aluminum beverage cans to fund their own "working vacation" helping the elderly and poor at the Ozark Mission Project.

Top municipal winner was Coral Gables, Fla. The city operates an aggressive curbside aluminum collection program that reportedly garners 95% resident participation.

Recycling Gets Wheels In Calgary

In an encouraging private industry partnership, Novacor Chemicals of Calgary, Alberta, and Safeway stores in the Calgary area recently unveiled a specially painted semi-trailer that will be used to collect, compact and haul post-consumer plastic scrap from Calgary to a nearby plastic recycler.

The City of Calgary is evaluating collection techniques for paper, glass and metal in some areas of the city. The test program does not include plastic. Novacor worked with Safeway to add plastic to an existing glass, paper and metal collection program at neighborhood Safeway store locations. The retail chain schedules a recycling day once a month on a rotating basis among its Calgary-area stores.

Novacor employee volunteers help consumers sort plastic scrap by material type and pass out literature with tips on preparing plastic for recycling. The separated scrap is compacted and transported on the new trailer to Polymont Plastics in nearby Red Deer. A phone number painted on the side of the vehicle invites Calgary-area community groups to call and book the trailer to host their own plastic recycling event.

Meeting of minds by leading analysts leads to realistic composite outlook

'92

> *If all economists were laid end to end,*
> *they would not reach a conclusion.*
> —George Bernard Shaw

Greg Erickson Editor in Chief

All right, if we can't hope for a conclusion among economists, we can still strive for agreement in principle among market research professionals.

Think of this PACKAGING special report as a daylong forecasting seminar that you can put in your briefcase.

In assembling it, PACKAGING's editors requested concise essays about the next 12 months and beyond from a number of leading observers of the packaging field. Their responses are published here verbatim, having been edited only to fit the space available. Note: The opinions expressed in these essays do not necessarily represent the opinions of PACKAGING magazine or Cahners Publishing Co.

Though these respected analysts differ on some of the fine points, they do indeed tend to agree on the big picture: The packaging field will see growth in 1992 over 1991.

Consumers Prove Key To Recovery

Kermit Baker
Chief Economist
Cahners Economics

Unlike past recoveries, the current economic resurgence lacks consumer purchasing vigor, noticeable employment increases and fast-paced production lines. This economic recovery is proving to be mild. Still, it will lead to growth in virtually all packaging markets by the end of 1992.

Concerned about the economic climate, consumers remain cautious in their spending. In fact, consumers are currently using much of their disposable income to pay off accumulated debt. As debt levels decrease, consumers will again increase their puchasing.

Total consumer spending on durables and nondurables

Continued on page 34

Cahners Economics, the research and forecasting arm of Cahners Publishing Co., produces a series of widely followed forecast newsletters and the Cahners Economic Outlook, *published annually.*

Flexibility Boosts Packaging Machinery

Darrin Brogan
Research Analyst
The Freedonia Group

Packaging machinery shipments, which totaled approximately $2.6 billion in 1991, will increase 7% in 1992, reaching $2.8 billion. Gains will be based on several factors including industry globalization, demand for more flexibility, sophistication and versatility plus heightened end-user demand coming out of the recession.

Imports and exports are expected to grow substantially through the end of the decade, as both increase their share of total packaging machinery demand. Exports are expected to grow at a faster pace, however. This will reflect the low dollar, expanding opportunities in foreign markets, and technological

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The Freedonia Group Inc., Cleveland, Ohio, is a business database/research company that provides detailed industry analyses and forecasts and competitive intelligence services.

Future Looks Bright For Health Care, Aseptics

Shiela A. McDonald
Frost & Sullivan Inc.

If the market for health-care products, medical and pharmaceutical, is recession-proof—as it seems to be—clearly so is the market for plastics used in packaging those products. Despite general economic uncertainty, there is no downturn in sales of resins destined for health-care packaging.

It's a market on the rise, from total sales of 1.27 billion pounds in 1989 to over 1.52 billion pounds in 1992 and 1.83 billion pounds in 1995. Total sales are predicted to climb from $642 million in 1989 to $777 million in 1992 and $954 million in 1995 (constant 1989 dollars, based on 1989 bulk resin prices).

Suppliers of plastic resins are

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Frost & Sullivan is an international business information company founded in 1961. The company has offices in New York, London, Paris and Frankfurt, plus agents in Tokyo and Milan.

Among the many trends affecting growth potential throughout the world of packaging in 1992, the environment still tops the list. After at least five years of intense debate, the packaging field and its critics seem to have barely scratched the surface of this complex issue.

We know, for example, that recycling of everything in the world is technically possible. But we still don't know what's economically feasible. Little by little, the costs of recycling are coming to be felt. It's not too early to begin redirecting our ecological energies.

As the editors of PACKAGING see it, recent moves by leading retail-products packagers toward source reduction could prove to be of longer-lasting significance than much of what's been said so far about post-consumer package recycling.

When looking at simplified, conservative, efficient-looking packaging, consumers see something they like. Let's hope lawmakers take notice, too.

Lingering a little longer

The recession has without a doubt lingered longer than expected. Low consumer confidence has been the meanie. And if the recovery proves uncommonly weak, it might well be because consumers continue saying, "Prove to me I need to buy this."

Many people who are finally spending some of their discretionary income are looking for ways to spend it without appearing irresponsible.

This is having its impact on packaging. Endorsement of source reduction by end users is leading to tangible evidence of increased packaging efficiency. As a result, end users and suppliers alike are starting to look like good guys instead of bad guys, whether they've bought into recycling or not.

A long, hard look

To great extent, new legislation affecting packaging is being driven by environmental concerns, but there's much more to it than that. The aggressive new director of the Food and Drug Administration is shaking up an agency that had been deservedly accused of low effectiveness and poor ethics. David Kessler is taking a long, hard look at packaging.

He appears to be an advocate of truth in

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Materials Must Offer Value To Excel

Peter J. Mooney
Vice President
Business Communications

In the 1990s so far, buying patterns have been impacted by the recession and the pervasive sense of erosion of living standards. Two years of decline in the rate of growth of GNP, a rise in unemployment and higher taxes have made us all more stoic in our consumption patterns.

Consumers are no longer roaming the aisles of grocery stores and hardware stores impressed by imaginative packaging designs and other product enhancements. They are looking for cost savings in the amount of the product they buy, in the types of products they buy and in packaging.

Superimposed on this consumer mindset is the legacy of

Continued on page 38

Business Communications Co., Norwalk, Conn., has been engaged in materials-related market research since 1971. Peter J. Mooney is director of research at BCC and head of its Plastics Research Div.

A Dual Turn-Around Seems Likely

Paul Schreiber
Manager, Packaging
Kline & Co.

Important driving forces in the U.S. packaging market in 1992 will be the hoped-for economic recovery, continued environmental pressures for new technologies, concentration on core business by suppliers and the beginning of a more global outlook.

A recovery in the economy will affect mostly cyclical, price-sensitive packaging markets such as corrugated containers, an industry seeing depressed profits in 1991. Other packaging markets—particularly packaged foods, cosmetics and pharmaceuticals—are much less cyclical and therefore will recover more slowly. Other packaging markets dependent on a good recovery

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Kline & Co., is an international business and consulting firm with headquarters in Fairfield, NJ, and principle offices in Brussels; Yokohama, Japan; Hong Kong and Melbourne, Australia.

Outlook Appears Mixed For Containers

William P. Weizer
Vice President
The Freedonia Group

Demand for food containers in the U.S. will increase 1.3% per year to 88 billion units in 1995.

Trends toward single-serve containers will continue based on consumer desires for convenience.

Plastics will continue to post gains vis-a-vis other materials, although their growth will slow due to renewed competition from glass, metal and paperboard.

The continued diffusion of the microwave oven will benefit plastic and paperboard trays along with frozen and other prepared foods.

Demand for plastic containers is forecast to increase 3.3% per year to nearly 33 billion units in

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The Freedonia Group Inc., Cleveland, Ohio, is a business database/research company that provides detailed industry analyses and forecasts and competitive intelligence services.

Baker: 'The green concept is a necessary outcome of the self-indulgent 1980s.'

'92

☐ A 5.1% rise in beverage shipments is projected—a healthy pace

☐ The value of exported drugs, expanding rapidly, should grow by 26%

☐ The home-appliance industry will see a 4.6% jump in shipments during 1992

☐ The major end markets for packaging will be looking for innovation

slipped in 1990 and this trend continued into 1991. Spending on durables was down 4.8% in 1991; nondurables spending fell 0.8%. Expenditures in both categories are forecast to be up in 1992: durables by 2.5%; nondurables by 1.4%.

To find the strongest areas of packaging growth, it is important to look at the major end markets for packaging products: foods and beverages, pharmaceuticals and medical products and household products.

Retail sales of foods, including restaurants and grocery stores, total over $506 billion annually. Food shipments totaled almost $398 billion in 1991—a 0.2% rise over 1990 shipments. Food shipments are expected to rise 3% annually through 1993.

Beverage shipments, a small but fast-growing piece of total food shipments, were only slightly affected by the economic downturn. Consumers have continued to buy beverages at a healthy pace: Shipments were up 2.7% in 1991. A 5.1% rise in 1992 is projected.

While overall consumer spending stagnates, spending on medical services and pharmacy products continues to grow and will create increasing need for new packaging. The United States is second only to Japan in terms of per capita pharmaceutical consumption, and the amount of drugs consumed in this country continues to increase.

Despite a recession in other manufacturing sectors in 1991, output of drugs and medicines exceeded expectations and expanded 5.9%. This trend of steady growth will continue through 1992, and by year-end, pharmaceutical production will have expanded 4.0%.

The value of shipments of pharmaceutical preparations increased 9.5% in 1991, mostly due to price increases. Consumer prices of drugs and medicines rose 8.2% in 1991, twice as fast as the general consumer price index. In 1992, shipments are forecast to increase 9.0% with prices rising 6.6%.

The value of export drugs has been expanding rapidly since the 1980s. In 1991, the value of exports jumped 25% to $1.25 billion, accounting for about 3% of all manufacturers' shipments. In 1992, the value of drugs exported should grow by at least 26%.

After four consecutive years of declines in total shipment volume, the appliance industry will see a 4.6% jump in shipments in 1992. Although shipment declines occurred in 1991 for a broad range of appliances, there are some encouraging signs for 1992. For example, recent Conference Board surveys of consumer buying plans for the first quarter of this year indicate an increase in appliance purchases.

A challenge for all companies is how to react to environmental legislation and consumer concerns. Product packaging is the first thing consumers see when buying a product, and they are increasingly looking for innovative and environmentally friendly packaging.

The "green" movement is a natural and necessary outcome of the self-indulgent 1980s, but it will not be a short-lived trend. Packaging which responds to the concerns of the marketplace will continue to win the consumer's dollar.

PRODUCT SHIPMENTS IN MAJOR PACKAGING MARKETS

(Annual percent change)

	1989	1990	1991	1992	1993
Foods	8.0	4.6	0.2	3.0	3.0
Beverages	5.3	1.4	2.7	5.1	2.5
Drugs, soaps and toiletries	12.1	6.4	6.9	8.9	7.8
Major appliances	−1.1	−6.7	−6.1	4.6	3.3

Source: Dept. of Commerce, Assoc. of Home Appliance Manufacturers. Forecast: Cahners Economics

The major end markets of the packaging industry will all be looking for packaging innovation. Price remains a vital piece of the puzzle.

Glass container prices will rise at a moderate pace in 1992 and 1993 with increases of 1.1% and 2.7%. Some of the slowdown will be caused by competition from other substitute and recyclable materials such as plastic.

Steel can prices will also be growing at moderate rates of 2.2% and 2.1% in 1992 and 1993.

Paperboard prices are more volatile, dropping 4.2% in 1991, and increasing 4.5% in 1992 and 2.4% in 1993.

Paperboard fiber drum prices will follow a similar pattern, but with less dramatic swings. Drum prices rose 1.9% in 1991. A 5.4% price gain is anticipated in 1992 before a slowdown to growth of 1.3% in 1993.

Prices for paper boxes and fiber cans are slowing or declining. Fiber can prices grew an amazing 10.5% in 1990, but slowed dramatically in 1991 to 1.6% growth. Paper box and container prices grew at an imperceptible rate of only 0.1% in 1990 and dropped 1.1% in 1991. Both of these containers will remain a bargain over the next few years as their prices remain lower than general inflation rates.

Other bargains appear to be in plastic packaging and aluminum cans. One contributor to this is the supply of recyclables back into the system, which reduces the demand for new plastic or aluminum containers.

Aluminum can prices declined 0.2% in 1991, preceding a 2.3% rise in 1992. Slight growth is expected to ensue as prices rise only 0.9% in 1993.

The bargain-basement packaging material for the next few years is plastic. Prices dropped in 1990 by 2.0% but picked up some ground in 1991 with a rise of 1.6%. Demand could slow somewhat. In response, prices should drop 3.5% in 1992 in an attempt to stimulate demand. □

superiority on the part of U.S. manufacturers.

Continued innovation by packaging machinery manufacturers will also be a key propellant of growth in this industry in 1992 and beyond.

Some of the most important technological trends include self-diagnostic capabilities, microprocessor control and fully automatic machines. Electronic features, from simple solid-state controls to programmable logic controllers, have dramatically increased the ability to control and diagnose individual machine functions. In addition, electronics expand machine and line flexibility and improve the reliability of the entire packaging process.

Shipments of labeling and related machinery are expected to increase 7.2% annually during the 1989-1994 period, exhibiting the highest growth among the various packaging machinery segments. Shipments will increase about 8.5% in 1992 over 1991, reaching $400 million.

The increasing availability of pressure-sensitive labels has allowed manufacturers to produce labeling equipment that is fast, efficient, simple to operate and service, and accurate—a trend that will continue to benefit this segment in the 1990s.

Technological innovation and wide utilization across a range of packaging operations will contribute to above-average growth for labeling and related machinery in 1992. The current trend toward the use of labels and codes inside packages for promotions, on or inside the package for traceability, and outside the package for product identity and/or production tracking will create a strong demand for labeling machinery and equipment in 1992.

The market share and growth expectations for wrapping and film packaging machinery are similar, although slightly slower, than those for labeling machinery. Shipments will increase about 38% during the 1989-1994 period.

Horizontal wrappers will provide the primary growth stimulus in this segment, due to product innovations including pre-programmed changeover, servo-driven crimper speeds and electronic control of web tension.

Shrink-wrap and stretch-wrap machinery will not fare quite as well, however, due primarily to competitive pressures from alternative packaging methods.

Cartoning and multipacking machinery shipments will see slightly below-average growth over the intermediate to long term. Shipments in 1992 are projected to increase about 6% over the 1991 level to $270 million, and by 1994 shipments will reach $300 million. Improvements in cartoning machinery capability, ease of operation and reliability will promote growth in this segment in the 1990s.

Shipments of case-forming and related machinery are projected to increase at a pace in line with the aggregate packaging machinery average, or just over 7% in 1992 to $265 million.

Continued enhancements in the flexibility of case-forming machinery, particularly computer-adjustable machines, will be the key to growth in this segment. Innovations include compact case formers that are compatible with all types of case-taping equipment.

Shipments of vacuum and filling machinery will rise less than 6% this year, reaching approximately $245 million. Growth here will be somewhat slower than that of the previously discussed machinery segments, mostly because usage is generally restricted to applications in the food and beverage industries.

In addition, the increasing use of flexible packaging materials will restrict growth somewhat, since they often utilize machinery that performs the entire form-fill-seal process.

Growth for vacuum and filling machinery will maintain an upward trend. Increasing sales of soft drinks and other beverages and the growing popularity of convenience in the form of microwavable frozen foods to promote demand for this machinery.

Form-fill-seal machines may be divided into horizontal and vertical types—each accounting for about half of the units in operation. Shipments in 1992 are projected to reach approximately $165 million—an increase of over 7% from this year.

The ability of form-fill-seal machinery to perform multiple functions and to interface easily with other existing packaging machinery will promote healthy shipment growth of over 35% between 1989 and 1994. Improved operating performance through the use of computerization will also spur growth. Newer models offer microprocessor-based control systems which deliver high-speed, high-efficiency operation.

The recent historical performance for thermoforming and related machinery has been stagnant—a trend that is expected to be reversed in the 1990s. Although per annum growth—5.4% through 1994 to $100 million—will remain below the aggregate packaging-machinery average, shipments of thermoforming and related machinery will accelerate over the intermediate to long term. This will be due to new products and general improvements in machinery flexibility and efficiency.

Shipments of capping, sealing and lidding machines, which have been relatively sluggish since the mid-1980s, will continue to suffer from the affects of market maturity in the beverage industry. Shipments of these products will increase about 4% this year to $85 million.

Accumulating machinery will experience minimal growth, partly because other packaging equipment is becoming more automated and is operating at higher speeds.

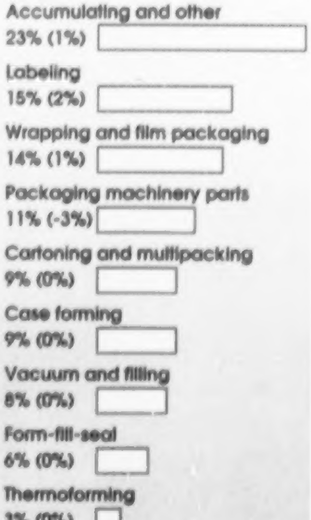
Testing, inspecting and weighing machinery will experience above-average growth due to growing requirements for accuracy. Demand for built-in automatic fault correction is becoming increasingly common among users and is expected to promote growth throught the forecast period. □

Brogan: 'Some of the most important trends include increased electronics.'

'92

SHIPMENTS OF PACKAGING MACHINERY, 2000

Labeling and related machinery, representing 15% of the total market for packaging machinery in 1989, should see the fastest growth of all segments by 2000, at 2%. Percents shown are shares of market. Those in parenthesis reflect change from 1989.



Source: The Freedonia Group

McDonald: 'Trends are pointing to more plastics in packaging, not less.'

'92

☐ **Various forms of aseptic packages should soon ring up $3.3 billion in sales**

☐ **Metal cans should move from 525 to 640 million units with a retail value of $256 billion**

☐ **In plastic cups for aseptics, growth to 3.6 billion units is foreseen through 1995**

☐ **Growth in blister packs for drugs is a major development in the fast-growing field**

generally upbeat about future prospects for what looks to be a steady growth market. Moreover, although health-care packaging takes a relatively tiny slice (less than 3%) of total U.S. plastics production, suppliers are happy to market to the health-care packaging industry. Some are aggressive in their commitments, willing to make special grades of plastic and to work closely with end users as well as selling to intermediate converters.

We have examined a number of problems involving plastics in health-care packaging, and their solutions. For example, one way to meet health and environmental concerns regarding disposable plastic packaging is with reusable plastic devices containing more expensive polymers, like polysulfones, that can withstand such processes as repeated autoclaving.

Frost & Sullivan finds trends pointing toward more disposable plastic packaging, not less, and at the expense of glass and metal.

Among those trends, blister packaging for pharmaceutical products is one of the most significant. Long preferred in Europe, thermoformed blister packs are beginning to catch on in the U.S., and beyond their use for cold medicines and other OTC products.

They have numerous advantages, such as less chance of contamination, less exposure to humidity, easier counting of daily doses, better tamper-resistance. And costs have come down relative to bulk packaging in bottles. Blister packaging is now actually less expensive than bottle packaging for counts of 100 or less. However, American manufacturers have a large investment in bottle-filling machinery. Then, too, pharmacists like to be part of the dispensing chain.

Aseptic packaging will soon ring up $3.3 billion in sales by preserving foods and beverages long-term in plastic and paper containers.

Anyone who has bought fruit juice in a paper-and-foil brick carton has already seen evidence of this trend. The technology, used commercially in Europe since the 1960s, was not available in the U.S. until the FDA cleared hydrogen peroxide as a packaging sterilant for an array of polymer materials in 1984. (Aseptic packaging sterilizes the food or beverage and the container separately; prior to the FDA ruling, it could only be used with metal or glass containers that could withstand superheated steam.)

This new technology has enabled food packers to introduce a variety of shelf-stable food products in lower-cost packaging, without the need for refrigeration. Frost & Sullivan predicts an $800 million increase by 1995 over the $2.45 billion market for aseptic goods that existed in 1990. Looked at another way, there were nearly 7.4 billion units of foods and beverages sold in aseptic packaging in 1990; by 1995 this will near 10 billion units.

In addition to cost advantages for the producer—lower energy consumption, transportation/distribution savings from less weight, and reduced space requirements—the shorter sterilization time required in aseptic packaging yields better taste and texture in the food product than is the case with standard alternative packaging.

In 1990, the brick-style carton accounted for 58% of all aseptic packaging by units, whereas plastic cups represented 35%, and metal cans 7%. In the future, Frost & Sullivan projects that the 4.26 billion units sold in brick-style cartons in 1990 will open up to 5.79 billion by 1995. In dollars, this constitutes a rise from $1.69 billion to $2.3 billion, making up some 70% of the market throughout those years. The preponderance is in fruit drinks.

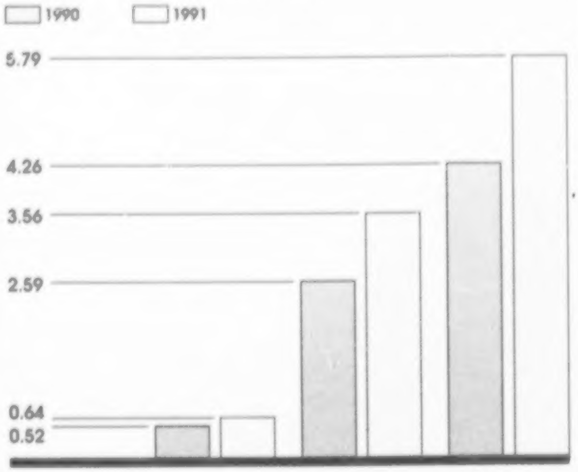
In plastic cups, a gain of 2.59 to 3.56 billion units is foreseen 1990-95, with a corresponding increase in dollars from $550 million to $745 million. Coffee creamers are the hottest product category, with 48% of volume in a unit basis.

Metal cans are used primarily for puddings and yogurt, but also for cheese dips and other products. Here, a gain from 525 million units to 640 million units is predicted, with a retail value of $210 million in 1990 to $256 million by 1995. ☐

U.S. FOOD AND BEVERAGE MARKET BY PACKAGE TYPE

Despite negative publicity regarding their environmental impact, paper-based cartons continue to grow in use for the aseptic packaging of foods and beverages.

Total 1990 market: 7.37 billion units
Total 1991 market: 9.99 billion units



Source: Frost & Sullivan Inc

Mooney: 'The need to do right environmentally clashes with traditional business.'

'92

☐ The drive to thin-wall packages continues in this era of source reduction

☐ In studies of comparative life-cycle performance, no one material dominates

☐ The most difficult call for the 1990s in packaging materials is plastics

☐ Despite intense pressures, no material will be legislated out of the arena

concern for the environment. We all became concerned with over-packaging in the 1980s. This concern is now reinforced by the growing awarenesss of the cost premium in such a packaging system. The drive to thin-wall packages—bottles, film bags, cans, etc.—will continue into the 1990s as we recognize the economic and ecological implications of excessive packaging.

"Doing the right thing" from the standpoint of the environment will clash with business's traditional mandate to maximize profits or minimize losses.

In the plastics field, the prices of some virgin resins used in flexible and rigid packaging have fallen below the prices of recycled resins. This stems from a glut of materials on the one hand and the high costs of retrieving, cleaning and reprocesssing post-consumer plastic packaging items on the other.

Unless legislated, few food or non-food packagers in the current economic climate will opt for higher-priced recycled resins for the questionable advantage of noting such ecological correctness on their product packaging.

Will the current concern over cost-savings evaporate once GNP and job growth resume or will it have been imprinted permanently on our packaging materials and design preferences?

Will our new eco-consciousness survive the new-found realization that the U.S. economic machine doesn't generate as much affluence as we had once thought and hoped? If it doesn't, concern for the environment may simply become part of the unsolvable, age-old confrontation between the haves and the have-nots.

Our sense is that materials that best promote cost-effective and versatile packaging with the least compromise of environmental prescriptions for rational material use and re-use will win out.

We have, in our studies of packaging-material competition, drawn up a ranking of comparative life-cycle cost-performance. No one material dominates, so we don't presume to settle the debate over optimal, "whole-life" cost-effectiveness of the various materials. But a few salient notions do emerge.

First, it is hard to defend steel as the material of the future in packaging. The same applies to glass, since we can deliver transparency in lighter and less-hazardous packages today.

The future lies with lighter-weight and versatile materials—aluminum, paper, plastics and combinations.

The handicap that aluminum faces is versatility. Other than foil, aluminum is limited as a flexible packaging medium. Moreover, it is hard to come up with creative and convenient aluminum packaging design (e.g., easy opening or handles for rigid containers).

Paper, having lost share to plastics in the first half of the 1980s on the grounds of inferior barrier properties, durability and versatility, is now seen as more benign in the post-consumer product environment than most materials.

The most difficult packaging material "call" for the 1990s is undoubtedly plastics. There is no question that this is a cost-effective and energy-efficient set of materials with unparalleled versatility. The limitations that plastic packaging material purveyors face are, in our view, more perception than reality.

Because suppliers of non-plastic materials have successfully questioned the recyclability of plastics, the plastics industry has had to scramble to prove its case and catch up with the aluminum, steel, glass and paper. And yet, with the exception of aluminum, efforts aimed at building and expanding recycling infrastructures have resulted in mountains of unusable newsprint, battery scrap, steel scrap, commingled plastics pellets, etc.

Thus, our forecasts for the trends of packaging material consumption into the 1990s are hardly controversial.

Plastics will continue to gain market share whereas glass and steel will continue to trend downward. Paper will be the staunchest competitor to plastics in both flexible and rigid packaging, whereas aluminum's growth pace will slow as its share of beverage containers tops out and it largely fails to transfer that strength to other container markets.

The economic realities we face in the global marketplace of the 1990s will constrain implementation of materials recycling and re-use. At least, this will progress more slowly than envisaged in the days of dynamic growth in the 1980s. The battle for environmental correctness won't be given up: it will just take more time, resources, and private-sector/public-sector cooperation.

No material will be legislated out of the packaging arena. □

SHIPMENTS OF PACKAGING MATERIALS

(Average annual percent change)

	Aluminum	Glass	Paper	Plastics	Steel
1985-1990	3.0	0.9	2.2	6.4	1.8
1990-1995	2.5	0.5	2.5	6.0	1.0
1995-2000	2.0	0.2	3.0	5.5	0.8

Definition and sources:
Aluminum—Volume (pounds) of aluminum in packaging; Aluminum Assoc.
Glass—Volume (units) of glass containers; U.S. Dept. of Commerce
Paper—Volume (real dollars) of paper in packaging; U.S. Dept. of Commerce
Plastics—Volume (pounds) of plastics in packaging; Society of the Plastics Industry
Steel—Volume (tons) of steel in containers, packaging and shipping material; American Iron and Steel Institute

Schreiber: '1992 looks like a year of improvement in the consumer perception of packaging.'

'92

☐ Microwave trends should benefit cost-effective paper packaging

☐ Suppliers are simplifying film structures that provide excellent barriers

☐ Risk avoidance seems likely to slow the pace of packaging innovation

☐ U.S. suppliers will seek expansion overseas, especially in Europe

are expensive prepared foods.

Environmental pressures on packaging often go through a crisis stage before more realistic and pragmatic solutions prevail. A prime example from outside of packaging was the demand for degradable trash bags and liners, a bubble which burst when the FDA and several state attorneys general brought suit against a major supplier. A market in degradable films once forecast at 2.2 billion pounds will be only a few hundred million pounds in 1992.

PVC is the packaging resin that is expected to come out of such a crisis stage in 1992. Actual or pending bans on PVC packaging in Europe and advocacy of similar actions by some environmentalists in the U.S. caused some packagers to abandon PVC in 1991. Kline forecasts that, in the long run, PVC will survive this crisis with some loss of market share. This will be least in PVC film packaging with continued growth, some loss of market in such thermoformed packaging as blister packs and trays, resulting in flat demand, and declining sales in bottles.

PET is showing signs of becoming an environmental star. Suppliers have developed methods for closed-loop recycling of PET soft-drink bottles. In both cases, the recovered PET resin has a purity equal to virgin resin.

Environmental considerations are also an important driving force in high-barrier films. Even though PVDC is used in minute quantities (often only 0.1 mil thick) to provide excellent oxygen barrier, it is often painted with the same "PVC brush" by environmentalists. This may cause some increase in the use of EVOH as the barrier resin on high-barrier films.

In addition, multilayer structures—especially those that combine paper, foil and film—are under attack as nonrecyclable and a problem when incinerated. Therefore, several barrier-film suppliers are developing simpler structures said to offer equal barrier properties. Two prime targets are the so-called juice boxes and the paper/film/foil structures use for dried foods.

Lower costs and simpler structures should result in an increase in use of such films as nylon and polyester. On the other hand, glass-coated films, a new technology that at first looked like the next revolution in transparent barrier films, will find only niche applications through 1996. Further growth will depend on reduced costs and greater confidence among food packagers.

Packaging markets in 1992 will see continued moves to packages that offer increased value for the dollar. For microwavable packaging this means a continued trend to all-paper, plastic-coated paper, and even aluminum trays as less-expensive packaging than CPET and other all-plastic packages.

We also believe that 1992 will see a continuing dearth in the number of new innovations in packaging, caused by a combination of risk avoidance by both packaging suppliers and packaging users during a recession, and the distraction of responding to increasingly intense environmental pressures. Most innovative packaging in 1992 will be directed toward greater "environmental friendliness," more source reduction, fewer multilayer structures and better recyclability.

As in other industries, there will be fewer leveraged buyouts of packaging suppliers during 1991 in response to less availability of high-risk capital. Instead, packaging suppliers are more likely to use acquisition and divestitures to strengthen their core businesses. In addition, more U.S. packaging suppliers will seek expansion overseas, especially in the European Economic Community, which keeps growing in size. It already exceeds the USA in population and may soon pass it in GNP also. In a like manner, we expect Canadian packaging suppliers to more aggressively move into the United States than U.S. suppliers into Canada.

Possibly the best news for both packaging suppliers and users, 1992 has every promise of being the year in which the very environmentally unfriendly perception of packaging by most consumers will begin to change, especially as directed toward plastic packaging. □

INTERNATIONAL FORECAST ON THE HORIZON

Packaging is increasingly becoming a global industry with barriers crossed by international brands. PACKAGING will present a special report in April. For now, here are some highlights from research organization Pira International.

Global trends can be summarized into half a dozen areas: a general slowdown in international growth. the splintering of traditionally larger markets, increasing levels of competition, growing exports from developing countries, shorter product-development cycles and an overall globalization of products and packaging.

Consumer-oriented packaging, which now accounts for $110 billion or 63% of the world market, is expected to be worth approximately $130 billion in 1994.

North America is expected to remain the largest packaging market, with Europe and Asia ranked second and third. Growth to 1995 is expected to be strongest in the Asia Pacific region. Eastern Europe and the Soviet Union represent enormous potential.

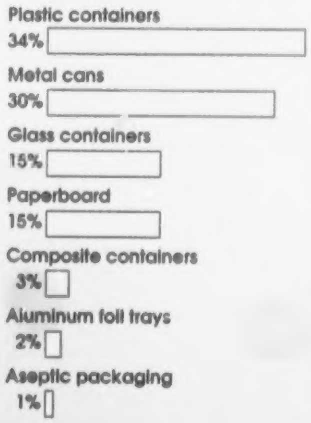
Beverages and cosmetics/healthcare are expected to show the largest growth, with the former forecast to increase by 6.1% annually and the latter by 5.5%. Food and other markets will continue to grow at the slower rate of 1.6%. On the technology front, most developments are likely to be led by environmental concerns. A new generation of barrier materials is certain to become more important.

> Weizer: 'Makers of consumer products will increase use of packaging as a marketing tool.'

'92

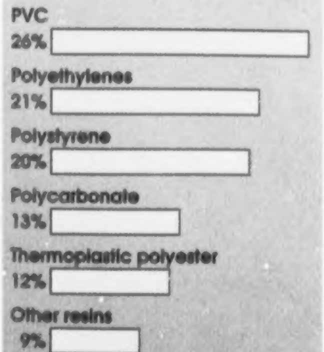
DEMAND FOR MATERIALS IN FOOD CONTAINERS, 1990

Plastic containers now lead in demand among all materials used in packaging foods. Percents shown are shares of total market: 82 billion units.



DEMAND FOR RESINS IN HIGH-VISIBILITY PACKAGING, 1990

Of all resins used in the manufacture of "hi-viz" packaging, PVC is in the lead and expected to stay there. Percentages shown are shares of total market: 120 million pounds.



Source: The Freedonia Group

1995. Growth will be based on plastic's light weight, microwavability, transparency, squeezability and shatter-resistance.

In unit terms, the foods market is dominated by polystyrene foam trays for instore packaging of produce, meat and baked goods. The most vibrant segment will be ovenable trays for microwave entrees and side dishes, with CPET and polypropylene showing the strongest gains.

Metal cans will hold their ground at 25 billion units through 1995. Declining demand for canned vegetables and fruits is being offset by increasing demand for pet foods and seafood.

Loss of market share by glass containers to plastic will slow considerably due to rising resin prices, stronger and lighter glass containers and a more cost-competitive glass-container industry. Glass will also benefit from its pristine environmental image and barrier properties.

Paperboard container demand will increase 1.1% per year to 13 billion units, with gains based on demand for coated paperboard trays used in microwavable meals.

Composite cans will be displaced by flexible packaging for snack foods and prepared bakery goods in the doughs segment.

Frozen foods and other prepared foods will show the industry's strongest growth based on the introduction of near restaurant-quality frozen, refrigerated and shelf-stable entrees and side dishes. Dairy products will grow based on the popularity of yogurt and pudding in single-serving HDPE and PP cups.

Demand for caps and closures in the U.S. is projected to increase 6% per year to $2.5 billion in 1995.

Growth will be stimulated by the increasing use of higher-value closure systems to upgrade the convenience, security and aesthetic value of packaged consumer goods.

Plastic closures, particularly dispensing and child-resistant types, will provide the best opportunities based on performance advantages, design flexibility and value-added characteristics.

Metal and metal-composite closures will diminish in importance due to higher overall costs and reduced applications as a result of the widespread market penetration of plastic containers.

Foods and beverages will remain the largest markets, although more rapid growth is expected in lower-volume household chemicals.

Dispensing devices will be increasingly incorporated on containers for liquid foods, liquid pharmaceuticals, cosmetics, personal-care goods and household chemicals.

Child-resistant closures will enjoy good growth due to government regulations requiring safety features on pharmaceutical and selected household-chemical containers and because of the increasing medication needs of an aging population.

Foods and beverages comprise the largest two end uses for caps and closures. However, end uses involving household chemicals, cosmetics and toiletries as well as medicinal and health products will exhibit strong growth. Demand for household chemicals will be boosted by the use of more expensive closures for multi-use products. Advances in pharmaceutical packaging will be tempered somewhat due to competition from non-closure packaging such as blister and skin types.

Household-chemical packaging in the U.S. will increase in demand by 4.6% per year to $815 million in 1995. Environmentally friendly packaging, including 2-liter PET refill bottles, paperboard refill cartons and recycled HDPE containers, will create strong opportunities.

Intensifying competition among household-chemical producers will create favorable demand for functional and value-added packaging such as trigger-spray dispensing bottles, non-aerosol pressurized containers and decorative paperboard windowed packages.

The value of containers consumed by the household-chemical industry will increase 4.2% per year to $490 million in 1995. Functional refill and recycled-plastics bottles for liquid cleaning preparations will exhibit the fastest growth in demand. High-barrier plastic jars will also create opportunities as replacements for metal cans in paste and solid-wax packaging applications.

Non-aerosol pressurized containers will capture significant market share from traditional aerosol cans for air-fresheners and room-deodorizers.

Continuing improvements in plastic materials and processing will cause glass containers to lose their few remaining household-chemical applications.

Multi-purpose and specialty household cleaners will remain the largest end use for household-chemical packaging, with demand reaching $220 million in 1995. PET refill bottles for glass cleaners and specially designed angle-necked bottles for toilet preparations will exhibit the best growth in the segment.

Packaging demand for household laundry chemicals will increase 5.1% per year to $205 million. Paperboard cartons will dominate this segment.

The value of raw materials in household chemical packaging will increase 3.3% per year to $370 million in 1995. HDPE resins will exhibit the most favorable growth. Polypropylene will also rise impressively due to broadening opportunities in child-resistant and dispensing closures.

Tin-plate steel will ward off challenges from aluminum and plastic in aerosol can applications, but lose some momentum to the expanding penetration of plastic trigger-spray bottles.

Paperboard will benefit from the rising popularity of fragrance units, but will continue to generate most demand from shopping container and labeling end uses. Weight, cost and breakage disadvantages will cause glass to eventually disapppear as a household-chemical packaging material. □

Doing things the same old way is risky, since use of the package as marketing tool is growing

'92

Growing consumer demand for organoleptically superb foods is driving R&D

America is aging, but product marketers seem to be ignoring the elderly

When the public thinks about packaging, drugs and foods get most attention

The amount of packaging materials to be bought in 1992 totals $78 billion

advertising. That means, among other things, accurate, realistic, meaningful messages on labels. PACKAGING's most recent consumer survey (see June 1991) shows that a distressingly large number of consumers think product labels are downright misleading and dishonest. Under Kessler, the FDA will try to put an end to that.

The Consumer Product Safety Commission is working to change the testing protocol for child-resistant closures. The deadline keeps being pushed back, but don't let that fool you: The commission is not just playing around.

All these demands and more can and will be met by the packaging field . . . provided sufficient effort is put into research and development. The Cahners Economics Business Confidence Index shows that R&D investment by American industry in 1991 was just OK.

The same old way

Recession or no, doing things the same old way is risky. As a result of our consumer research, the editors of PACKAGING have documented changes in the way consumers approach packages and the products they contain. A good example is microwavable meals. The technology remains impressive; the packaging is attractive; the products are reasonably priced. And yet consumers are not happy with every single microwave food that hits the market.

Growing consumer demand for organoleptically pleasing packaged foods will prompt materials scientists to do much more in the future than they have in the past to provide it.

Here's another growth area for packaging R&D: We reported more than a year ago on packages that were particularly difficult for older consumers to use.

Since we published that report, almost nothing has changed. The American population is aging rapidly, and the elderly are thus becoming an increasingly powerful demographic segment of the marketplace. But they seem to be being ignored by those who market packaged products to them.

Packaging as sales tool

The package as marketing tool is skyrocketing in importance.

On this point, professionals in advertising, product marketing and market research as well as packaging seem to agree wholeheartedly: Developing a great package is likely to be the most effective sales strategy of all.

When the American public thinks about packaging, the tendency is to focus on foods and pharmaceuticals. Many packaging professionals do so too, simply because that's where so much of the innovation takes place. But to get a feeling for the real importance of packaging, we all have to consider numerous different manufacturing industries. It is only then that we realize how big and influential this business is.

Working with a proprietary methodology, PACKAGING has developed forecast figures across the board. (See table.) Our estimate of the amount of packaging materials that will be purchased by all these industries during 1992: $78 billion. No wonder the field of packaging has been under attack.

A few more predictions

Here are a few other predictions we feel confident in making.

- The debate about corrugated will continue following changes in the way this material is tested and rated.
- The search for qualified workers to run increasingly sophisticated packaging machinery will be a time-consuming, expensive one.
- Protecting those workers from injury will be especially important as health-care costs continue to rise.
- Quality, in materials and machines, will grow in importance as competition increases for share of market.
- Packages that can hang from a peg, especially if the package is made of flexible film, will continue to grow in popularity among retailers and consumers alike.
- Turnkey suppliers of entire packaging systems will become more and more powerful as end users strive to boost accountability for packaging-line problems.

The coming year, as we see it, is full of challenges. But they are different from those of the past 12 months. ■

PACKAGING CONSUMPTION FORECAST

(Value of packaging materials, containers, supplies)

	'92 Consumption ($ millions, current)	Percent Growth (1991-1992)
Foods	27,506	6.4
Beverages	14,602	3.8
Drugs, soaps, toiletries	9,139	7.0
Electrical machinery	4,421	6.6
Fabricated metals-	3,608	1.1
Industrial chemicals	2,657	−1.4
Instruments	2,526	4.5
Non-electrical machinery	1,631	5.0
Rubber/plastic products	963	5.8
Paper products	929	6.8
Tobacco	909	5.6
Transportation	752	3.0
Petroleum products	505	1.7
Stone, clay, glass	292	6.6
Primary metals	128	6.3
Other industries	7,249	−2.8

Source: PACKAGING magazine, Cahners Economics, U.S. Dept. of Commerce

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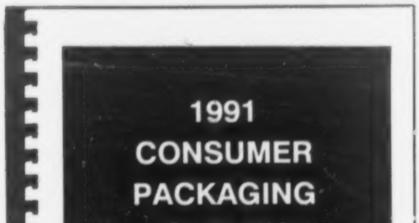
CONSUMERS TALK ABOUT PACKAGING



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THE CAHNERS MAGAZINE FOR DECISION-MAKERS/FEBRUARY 1992

WHAT'S THE Rx FOR SUCCESS?

Retailers Say The Package Can Help Or Hurt

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Line Managers Face Challenge Of Worker Training

New Products Debut At EastPack '92, Interphex USA

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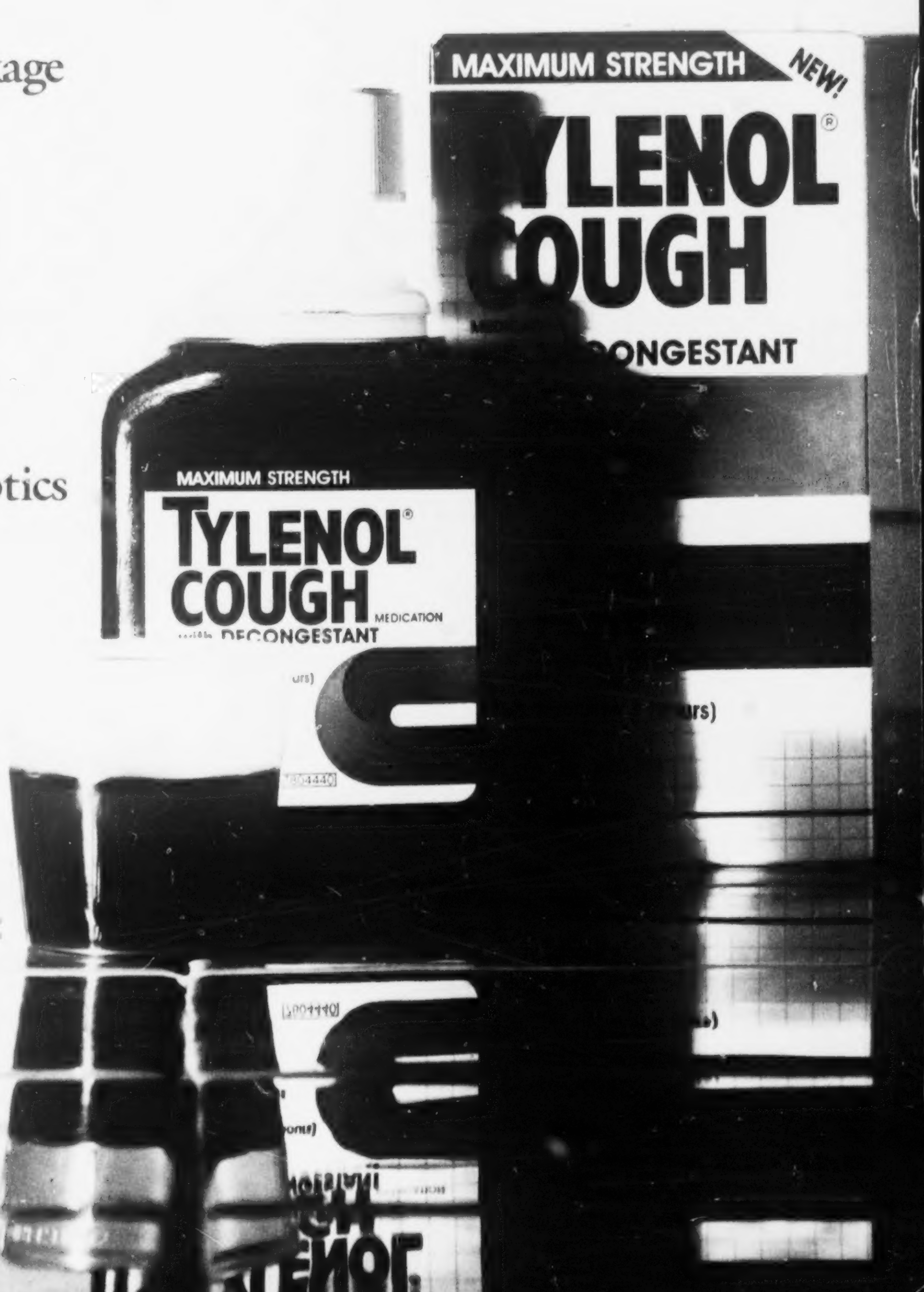
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PACKAGING

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SideBar

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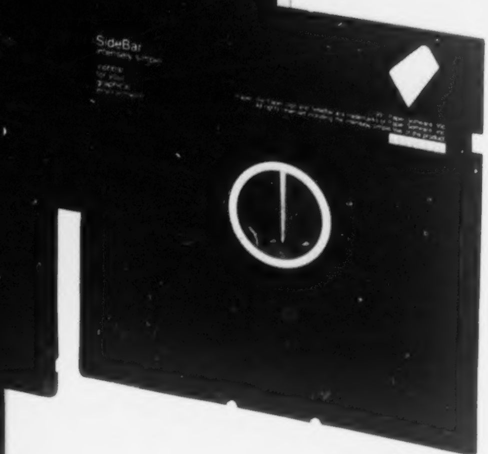

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NEXT MONTH

Dress up that bottle! Could your plastic bottle use some flair? Color it, pearlize it, clarify it—and watch sales perk up.

How to put converter expertise to work. Got a great new product, but don't know how to package it? Check out converter "partnering."

Adhesive applicators stick to the task. Sift-proof carton sealing profits from pinpoint accuracy and the latest electronic versatility.

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✓ Packaging is increasingly becoming a global business with barriers crossed by truly international brands. We'll present reports from a dozen foreign countries including the U.K., France, Germany, South Africa and Australia.

✓ Co-packing Windex refill pouches for Drackett is only the latest—and boldest—in a series of successful projects for contract packager Marietta Corp.

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INTERPHEX-USA

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PACKAGING CONFIDENCE INDEX

Expectations rise to Oct. '91 levels

Kermit Baker
Chief Economist
Cahners Economics

The PACKAGING Magazine Business Confidence Index shot up in January. The rebound comes after four straight monthly declines and brings the index near its October 1991 level.

The vantage point of a new year may have had some impact on the improvement in business confidence. More likely, though, businesses are reacting to the dramatic decline in interest rates over the past month.

A good sign from the third quarter of 1991 was 3.8% rise in corporate profits. Profit increases, of course, lead to increases in marketing and capital spending.

Another positive note was stabilization in inventories. After declines since the end of 1990, businesses apparently felt that inventories were down to what appeared to be appropriate levels. Any increase in demand can be translated directly into increased production.

Gains in business confidence in the packaging field follow patterns seen in every business sector, region and function. The improvement supplies a piece of hard evidence that a manufacturing recovery can be expected to begin in early to mid-1992, pushing packaging demand up.

A healthy dose

Overall, this month's survey uncovered a healthy dose of optimism in the business community. Like last summer, though, businesses are unlikely to continue spending unless end-market demand follows closely.

Public expectations for the future did not follow the same path as business in January, although expectations for the future are much more positive than opinions about the present situation.

The overall Consumer Confidence Index (1985 = 100), which measures opinions about both the present situation and expectations, dipped from 52.5 in December to 50.4 in January.

Expectations rose in December to 72.6, then dipped in January to 69.2. According to the Conference Board, less than 19% of Consumer Confidence Survey respondents believe business conditions will be "better" by summer.

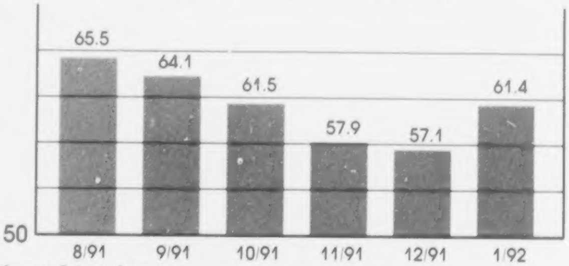
But consumer demand accumulated during pessimistic times will eventually reach the marketplace and boost the recovery . . . provided consumers are convinced that times will get better.

If businesses begin to act as their confidence suggests, the consumer may be more confident of employment opportunities and security, creating higher expectations for the future.

Research assistance:
Lori Brassaw, Economist
Cahners Economics

BUSINESS CONFIDENCE
TAKES A BIG JUMP IN JANUARY

After four months of declining expectations, respondents to the PACKAGING Business Confidence Index survey in January 1992 report growing optimism. Note: Any number over 50 reflects more optimism than pessimism.



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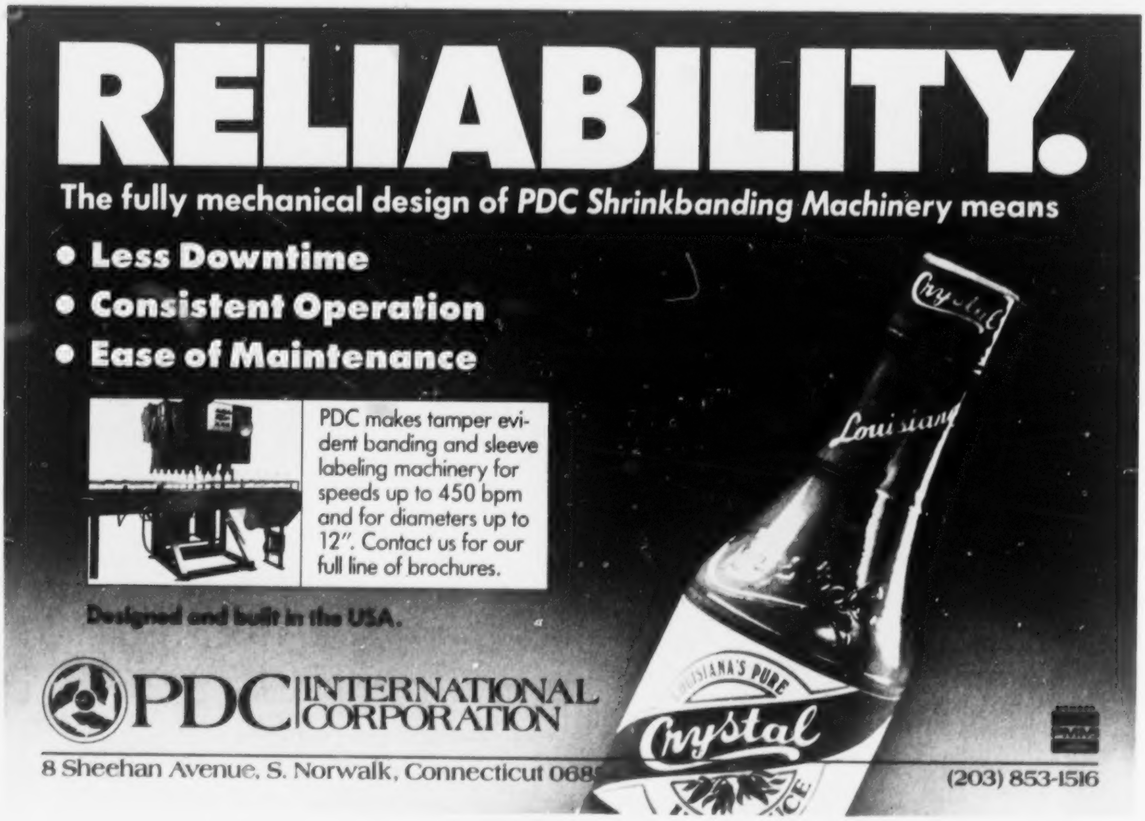
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DEVELOPING SKILLED LABOR FOR THE FUTURE

The recession forced labor cutbacks on your packaging line. Now you're gearing up. How will you find and train operators to run your advanced machines?

Lisa McTigue Pierce
Associate Editor

Strange as it may seem at a time like this in America's economic history, good workers are hard to find.

Day after day during the recession, headlines told us of layoffs by the thousands. You'd think that the ranks of the unemployed would contain any number of workers who would make a valuable addition to your packaging operation now that you're planning to staff up. In fact, that isn't so.

A competent, efficient staff is especially critical during periods of growth. With so many people out of work, finding a warm body to stand around on your line will be easy. But finding someone with the necessary skills and knowledge to help you raise productivity won't be.

The best computer yet

Today's packaging machines are more sophisticated, integrating technological advances such as computer-control and built-in diagnostics.

Two beliefs clash on the effects of this technology:

- Because machines are more sophisticated, packaging lines require fewer but more highly skilled operators.
- Packaging machines are so smart that anybody can run them.

The second statement is true, says David Sandahl, practice leader for Kepner-Tregoe, a management consulting firm, "when the machine works as designed." But, he adds, "When there's a deviation, you're much better off if your work force is highly skilled. Human beings still have the best computers going."

Consultant Bob Luciano expresses a similar view, "You can train someone to set up a line with standard numbers, but materials aren't all the same. The machine has to be tweaked. It's very difficult to teach someone to tweak it. Learn how to spread out the skills of people. After the operators set up the line, have a master technician check their work."

Suppliers are quick to point out the timesaving benefits of their systems. Machines with computer diagnostics and pre-programmed setup can cut downtime—as long as operators understand how to communicate with them.

Manufacturers of programmable controllers, for example, realize the necessity of a user-friendly operator/computer interface.

Touch screens are continuing the evolution of operator-interface technology. Also on a packager's wish list: better graphics and color for displaying messages and alerts, smaller devices, ergonomic buttons or switches and native-language support as markets become more global.

Erasing the line

Packaging machinery technology is advancing so fast that simply investing in the newest systems is not enough to stay competitive.

To keep a step ahead, companies must invest in their people-based technology,

SOMEONE TO TURN TO

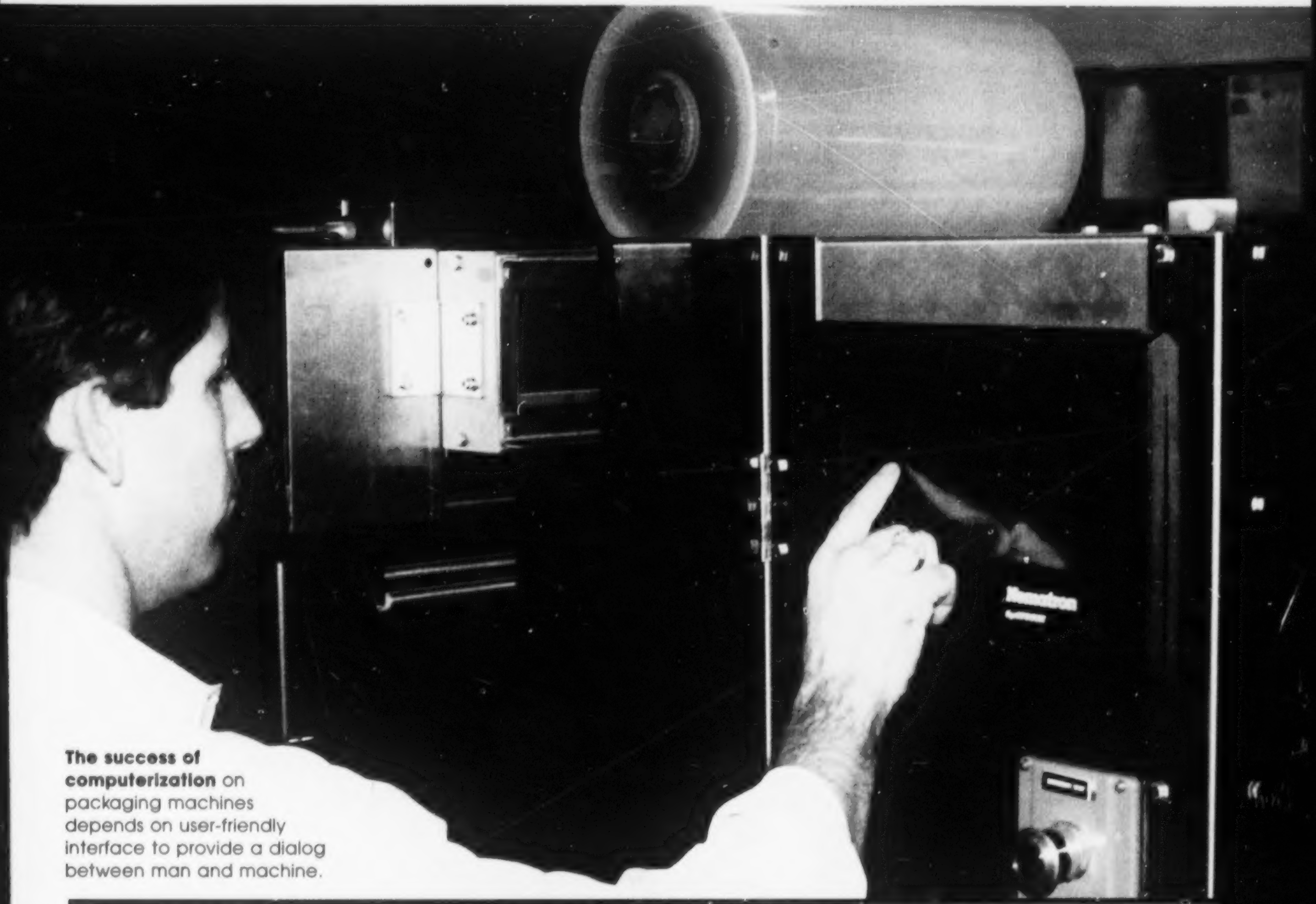
Managers are responsible for making sure operators and mechanics keep lines running at top efficiency. But it's not necessarily the manager's job to do the teaching.

One option is to set up a training program with a local school. The Packaging Machinery Manufacturers Institute has helped establish programs with colleges in various parts of the U.S.

Another alternative is to find an existing in-plant training program that you and your line personnel can follow. PMMI publishes 21 self-instruction courses on packaging machinery training which cover topics such as the basics of mechanics and troubleshooting skills.

According to PMMI, key to the success of its program is that "the self-instructional format allows each trainee to progress at his or her own best pace, moving rapidly through familiar material and concentrating on the areas in which more instruction is needed."

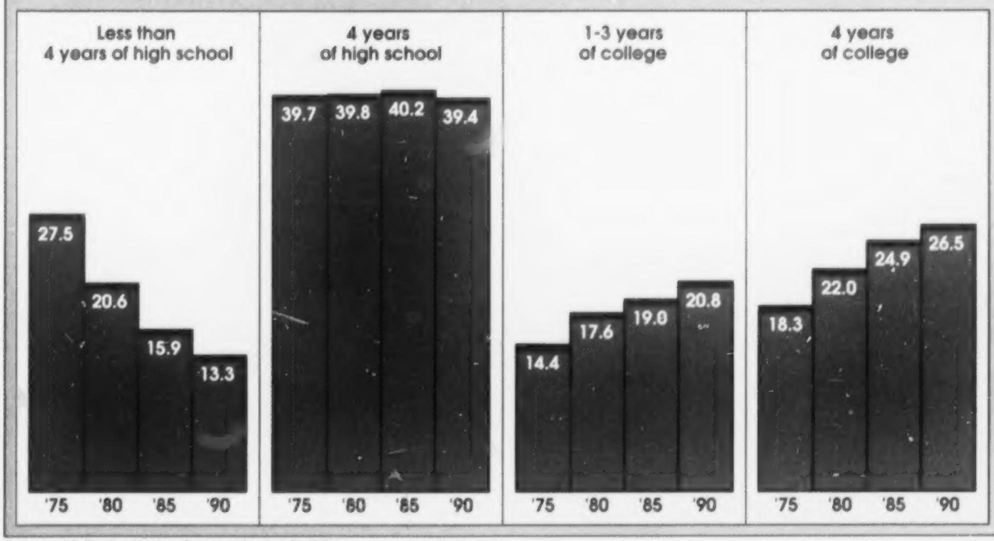
For more information on PMMI's training courses or about programs at local schools, circle **530** or contact Glenn Davis, director of training and education at PMMI, Wash., D.C.



The success of computerization on packaging machines depends on user-friendly interface to provide a dialog between man and machine.

HIGHER EDUCATION MEANS SMALLER MANUAL-LABOR POOL

The percentage of workers aged 25 to 64 with some college education has risen steadily over the past 15 years while the number of workers without a high-school diploma has dropped more than 14%. More-educated Americans are believed to be less interested in blue-collar jobs.



Source: U.S. Dept. of Labor, Bureau of Labor Statistics

'Human beings have the best computers going'

says Sandahl. "The pace of improvement on technology is so fast that tomorrow you may not be obsolete, but you will be a step behind."

Advances in packaging machinery are *reshaping* rather than eliminating specific duties on the line. Magazines still need to be filled; knobs have to be turned; moving parts must be lubricated.

In the past, packaging-line workers fell into one of three job levels: machine operator (relatively low-skilled); line supervisor to oversee and troubleshoot the line (medium skill level) and line mechanic (highly skilled).

Today the line between job responsibilities is getting thinner and even being erased. Companies want operators who can run the line, fine-tune the machines and repair minor problems.

"You cannot afford to have workers wait until a mechanic comes in," says Sandahl. "Think of the difference between a two-hour, four-hour or eight-hour delay in production vs. your workers fixing the line in 20 minutes."

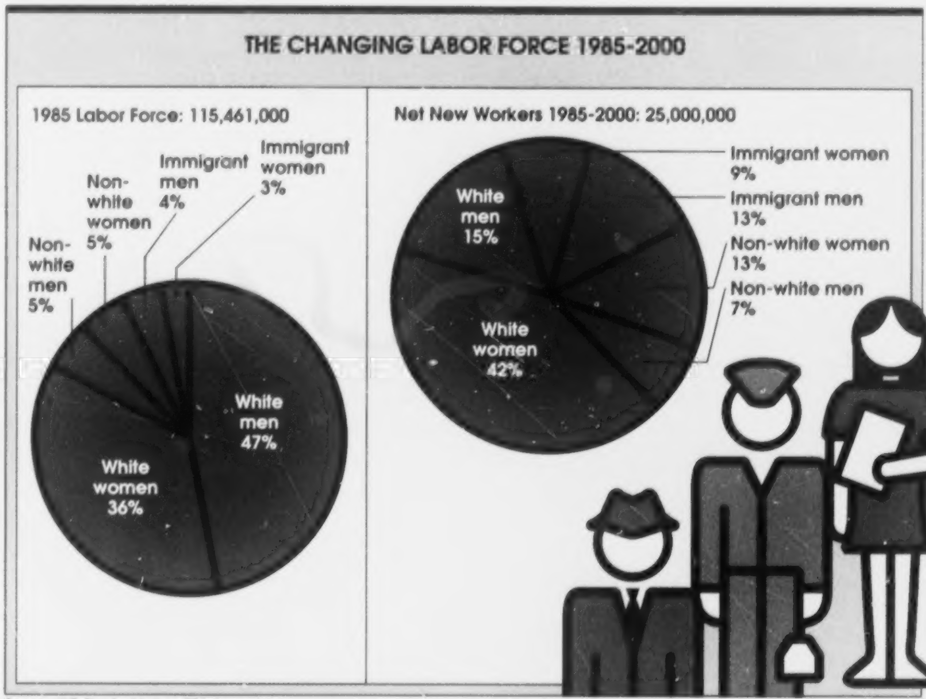
Glenn Davis, director of training and education at the Packaging Machinery Manufacturers Institute, agrees. "When the line goes down, the operator who puts it back up becomes a very important aspect of the chain," he says.

Luciano describes how recent trends support this idea. "The team approach has changed a lot. Everybody on the line is being trained to do any job on the line," he says. "It's forcing things like user-friendly machines."

Workforce 1992

Packaging operations are being affected by changes in the overall job market. According to *Workforce 2000*, a report prepared by the Hudson Institute for the U.S. Dept. of Labor, three major trends will have an impact on the workforce of the future: a growing need for educated workers, a higher proportion of women and minorities entering the labor pool and a marked decrease in the number of young workers.

A recent article in the *EPA*



Source: U.S. Dept. of Labor, EPA Journal

AGRESSIVE TRAINING PROGRAM SPARKS ENTHUSIASM, LOYALTY

The benefits of establishing a training program far outweigh the essential investment, says David Namowicz, president of Warren Industries, a contract packager in Racine, Wis. In an interview with PACKAGING, he explains how well his company's customized training program works.

Q: *What kind of training program do you have?*

A: We have two types of training. We train a key person to provide on-the-job training for other workers.

We also have a teacher come in from a local technical school to give a course geared to our people. It's a classroom setup here in our building. Classes are at the end of the shifts so it's easy for people to attend. We also pay them for their time during the training and even bring in pizza every so often.

We tried sending them to school campuses but the dropout rate was too high.

Through this program, our workers earn technical-school credits. Besides mechanical abilities, we teach our workers how to be a team. We even provide classes for General Equivalency Diplomas (GEDs).

Q: *Why establish in-plant training?*

A: Simply to guarantee the company's future. It's very hard to find skilled labor with good work ethics. The schools have failed, so we have to find people who have a good work ethic and then teach them the way we want them to be taught. Of the 32 mechanics that we have, only two or three were hired [as mechanics]. The rest we trained.

Because we're a smaller company, we can't compete with high benefits, so right away I lose the good people to the big guys.

Q: *How does the training effect pay?*

A: We pay the workers more after they're trained, either at their annual review or because of a promotion. During the review, we also tell them what they can do in the future to increase their pay and improve their position.

Q: *How does the company benefit?*

A: The cost of training is very low compared to the benefits. We've invested about $50,000 on education for our workers. That's cheap compared to hiring "head hunters" to find good people.

Our people see room for progress within the company and they seem to feel a sense of loyalty to us for giving them the training.

People come out of the class with so much enthusiasm. That's an intangible that we can't ignore—the enthusiasm. They give their best because they appreciate what we do for them.

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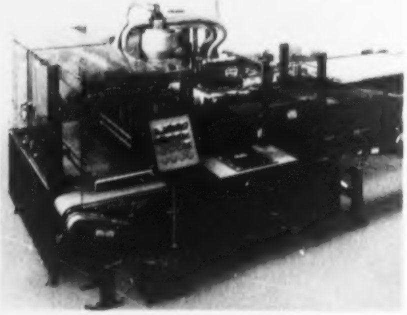

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Cases are one- to two-lane divided and surged against a line stop, then brought into position adjacent to the robotic cell for loading. The end-of-arm tooling on the cell picks up the correct layer count/pack pattern from the product infeed conveyor when accumulated and places it in the case. When the desired pack count is achieved, the filled case is indexed away from the load station for sealing.

For more information, contact Thiele Engineering Company, 7225 Bush Lake Rd., Minneapolis, Minn. 55435, 612/835-2290.

For information circle **30**

> 'The cost of training is low compared to the benefits'

Journal discusses the ramifications of an aging workforce:

"While a more mature labor force has many positive attributes, one issue is clear: There will need to be additional training of individuals in the workforce to compensate for a lack of incoming qualified entrants."

This is no news to Davis, who is responsible for putting together training programs for PMMI. (See sidebar.)

"There is no foreseeable improvement in the labor situation because very little is being done to increase the pool of skilled workers," Davis says. "The demand is so large that there's no chance it will be met. As industry expands, more lines are put into operation. This expansion more than covers the reduction in the number of jobs because machines are more sophisticated and easier to operate."

The solution is not magic, just elementary: Take worker training seriously.

"It may be harder with some people more than others, but everyone can learn additional skills," Sandahl says.

Back to class

Training can take several forms.

- In-plant training, either classroom-style or hands-on
- Operator and troubleshooting training from suppliers on specific systems, especially during new installation
- Computer training systems tailored to your needs
- Mechanics training classes at a local technical school or community college
- Management consultants who teach theoretical problem-solving techniques

The chosen method may change for each situation. What's clear is that you must take control of training your present workforce to plan for the future.

A short-term Catch-22 is that a training program designed to boost productivity can initially add to overhead because your newly skilled workers deserve a higher salary.

The problem is in thinking short-term. Investment in worker training undoubtably, unequivocally produces a positive effect on profits long-term.

From bulbs to bags to bromides,

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"If you give people a clear idea of what needs to be done, give them the skills and motivation, there's no limit to the contribution they can make," says Sandahl. "Part of being world class is having a world-class labor force." ■

Our thanks to the following sources for contributing to the factual content of this article: Allen-Bradley, Bureau of Labor Statistics, R.A. Jones & Co., Kepner-Tregoe, Luciano Associates, Omron Electronics, Packaging Machinery Manufacturers Institute and Warren Industries.

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Supplier training, like this class on programmable controls at a company's Factory Automation Center, gives workers specific, hands-on training.

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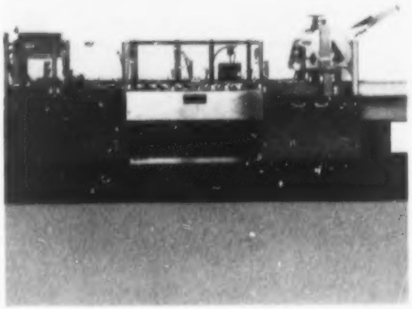

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For information circle **31**

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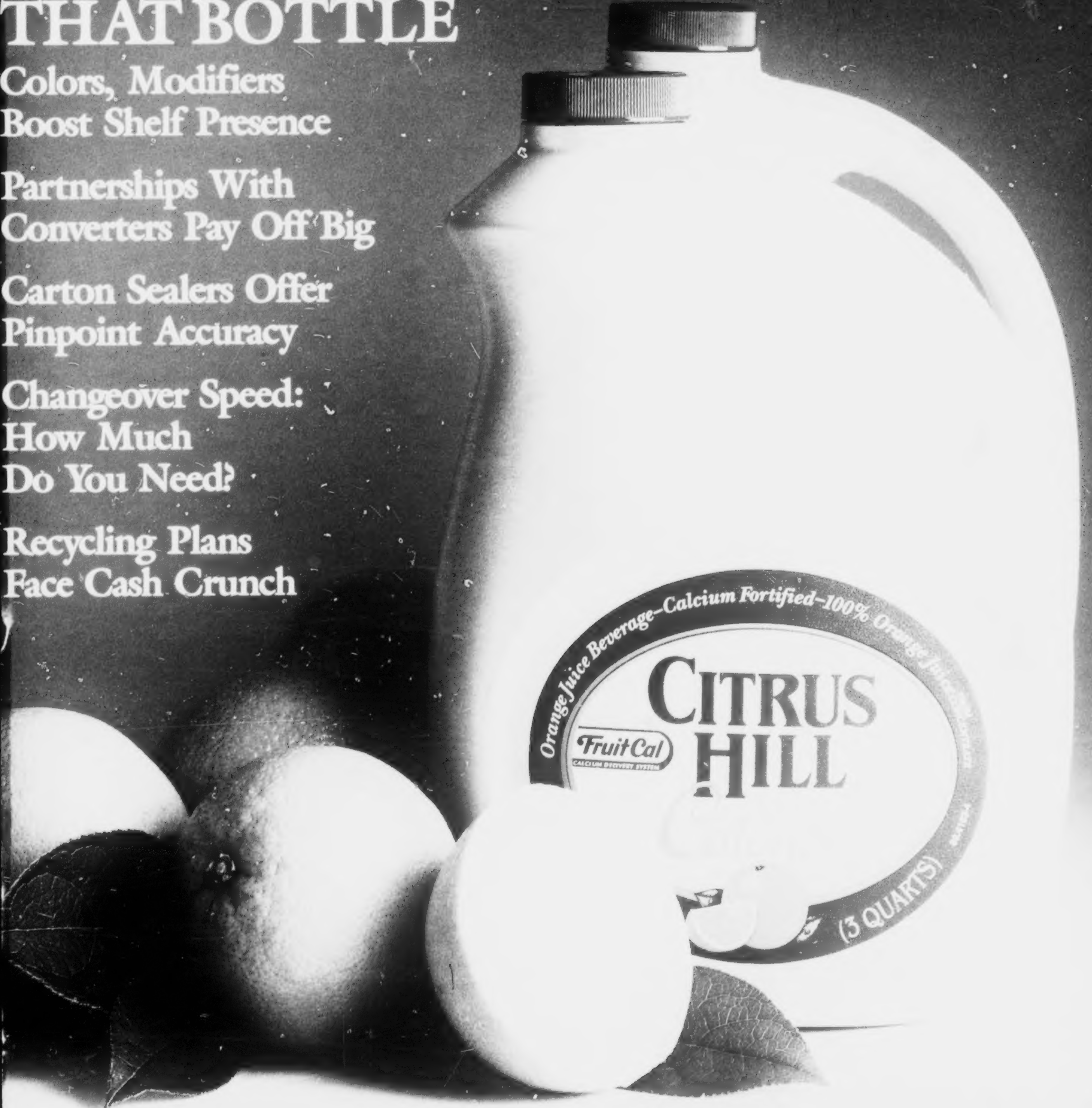
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PACKAGING

BREAKING NEWS

Leading consumer-goods marketer unveils 'green' packaging plans

Dowbrands, the consumer-product arm of Dow Chemical and a major marketer of household and personal-care products, recently introduced a number of environmental initiatives it calls Green Goals.

During a telephone question-and-answer session with a number of magazines including PACKAGING, Lee A. Shobe, Dowbrands president, listed concentrates in pouches and large-size packs for shampoos as ways the company will implement source reduction.

Shobe also revealed that environment-related consumer calls to Dowbrands' toll-free line totaled more than 2,000 in 1991, up from 66 in 1990.

In reponse to a question from the PACKAGING editor, a Dowbrands executive cast some doubt on the future of cleaner-impregnated wipes, a product category that Dowbrands helped to popularize and which has been attacked as an example of overpackaging.

Asked about the future of products such as Dowbrands S'Wipes and Spiffits, Dick Perry, vice president of corporate affairs, responded that the wipes have drawn criticism from Dowbrands' own environmental steering committee. "Not only that, but sales are down," he said, adding that a repackaging or other product change may be in the works.

P&G tests Ultra liquid detergents, refill jugs and bag-in-box pack

As part of its ongoing source-reduction strategy, Procter & Gamble is "concentrating" on a major market test of four Ultra superconcentrated liquid detergents. The Tide, Era, Cheer and Dash products are packaged in 50-, 100- and 150-ounce containers.

The plastic bottles feature clear viewstrips below the handle to show how much product remains. The smaller bottle is touted as cleaning the same number of washes as a regular 64-ounce container.

Ultra packs have been on store shelves in Colorado and parts of Wyoming, Nebraska, Utah and South Dakota since February 3. According to a P&G spokesperson, Ultra liquids have been completely substituted for the regular-strength products on display.

P&G is testing Ultra Refills of the four detergents as well. Made from 50% post-consumer recycled HDPE, the refill containers resemble translucent milk jugs. These 40-ounce square, handled bottles have plastic screw-on closures.

More news: In the same markets, Ultra Tide liquid in a 200-ounce bag-in-box is also in test. With 50% less packaging than the same amount of product in bottles, says P&G, the bag-in-box additionally ends the need for corrugated shipping cases.

AIMCAL names metallized label with hologram as Package of Year

The 12th AIMCAL packaging and label competition—for the very first time—named as Package of the Year an entry in the label category: a metallized hologram label for Xerox Corp. In the label, the Xerox name appears as a 3-D multicolor print below the surface of the polyester film. Removing the label causes the upper layer of film to peel off. As it lifts, metallizing from the bottom substrate adheres to the checkerboard pattern on the upper layer, thus providing tamper evidence. The winner was developed jointly by Tapecon Co. and Flexcon Co. Dunmore Corp. metallized the polyester film from DuPont.

Other AIMCAL packaging winners were metallized overwrap for R.J. Reynolds' Winston cigarettes, hologram labels for Molson Brewing, snack-food bags for Keebler and Beer Nuts, and a multiwall bag for Terra agricultural herbicides.

For RJR's FlavorSeal overwrap, Camvac America converts the Vacumet-metallized polyester film from ICI Americas. The wrap is also used on Salem cigarettes. The Molson paper labels were mechanically altered by Van Leer Metallized Products through a grating process from The Diffraction Co.

Metallized Beer Nut pouches were converted by Printpack from Hoechst Diafoil polyester, and Himac metallized the Unitika Ltd. polyester film for the Keebler snacks. Finally, for Terra herbicides, Bancroft Bag converted Camvac-metallized polyester film from Hoechst Diafoil.

Research group sees 19% jump in plastics packaging by 1996

Market Search, Toledo, Ohio, predicts that plastics use in packaging will increase by a hefty 19% over the next five years. The research organization says that will bring total consumption to 14.4 billion pounds by the end of 1996.

Currently, according to Market Search, plastic penetration in packaging for toiletries, medications, automotive fluids and refrigerated foods in flexible film approaches 100%. In these market segments, plastics compete with other plastics, not with non-plastics.

Other segments in which plastics are dominant include milk packaging and refrigerated foods in rigid

PACKAGING's Breaking News is prepared just days prior to publication. Please fax late-breaking news to the attention of Greg Erickson, editor in chief, at (708) 635-6856.

BREAKING NEWS

CURRENT PENETRATION OF SELECTED PLASTICS PACKAGING APPLICATIONS

Beverages:	
Soft Drinks	30.5%
Liquor	11.4%
Juice	11.6%
Milk	78.1%
Drinking Water (including tap)	6.0%
Foods:	
Frozen/Heatable Foods	37.6%
Refrigerated Foods, Rigid Packaging	84.0%
Refrigerated Foods, Flexible Packaging	100.0%
Ambient-filled Foods	9.9%
Hot-filled Foods (realistic potential)	13.4%
Retorted Foods (realistic potential)	20.0%
Non-Foods:	
Automotive & Marine Products	99.0%
Paint	7.0%
Bulk Industrial Drums & Pails	10.0%
Toiletries	99.0%
Medications	99.0%

Source: Market Search Inc.

containers. Among market segments representing greatest growth potential according to Market Search are liquor, juice, drinking water, hot-filled foods, retorted foods and paints.

The organization is preparing a 600-page report on plastics in packaging for release this June.

Dairy becomes first U.S. processor to license Pop Pak technology

Fast Trak fruit juices and drinks from Guida-Seibert Dairy have become the first American products to use Pop Pak shelf-stable technology. The system, licensed from FBI Brands Ltd., Montreal, employs a hermetic sealing method and post-pasteurization process to package liquids in five-layer coextruded, gabletop cartons. The resulting product has a shelf life similar to that of typical aseptic drink boxes.

President of grocery group presses for 'defense' of packaging

In a speech to the Environmental Affairs Conference sponsored recently by the Grocery Manufacturers of America Inc. and the Food Marketing Institute, GMA President Manly Molpus pressed for a defense of packaging from environmental attacks.

Molpus said packaging plays an important role in "protecting and transporting the nation's food supply." He went on, "We do not point this out as a defense to dodge the issue, but rather to avoid unintended consequences from the imposition of rigid rules which raise safety concerns."

Molpus said there was no "silver bullet" that would put an end to solid-waste problems "no matter how politically popular that notion as embodied in rates and dates may seem." He continued, "We must ensure that all of the solutions, including waste-to-energy incineration and siting new landfills, are considered."

For years, Molpus said, the grocery industry has worked to reduce solid waste because it was good business. He added that one big challenge is to "get our own house in order," work as a united group and "forge new areas of cooperation that will assure government enacts sound policies, not unworkable solutions which jeopardize our ability to manufacture, distribute and sell product in the most economically and environmentally efficient manner possible."

Golden Mummy awards honor innovations in OPP-film use

Three snack-food packagers were presented with Golden Mummy awards Feb. 24 for innovative use of Mobil Chemical's OPP films. The honors were bestowed during Snaxpo '92 in San Francisco.

Winners were HomeTown Potato Chips for a package incorporating vivid color graphics on the company's NFL Crunchit! potato-chip bags; Country Crisp Foods for a high-barrier package to extend the shelf life of its Walker's Country Crisp potato chips; and the Indian Agricultural Program for a high-gloss package that preserves the flavor of Arrowheads White Corn Chips.

FPA lists Top Packaging Winners and their converters

Winners in the Flexible Packaging Association's Top Packaging competition for 1991 exemplify innovations in design, marketing, printing processes and use of materials. Companies honored include American National Can for Drackett's Windex Refill stand-up pouch; Bagcraft Corp. of America for the Burger King/General Motor coupon bag; Cello Bag for Pillsbury's Azteca Appetizer Dessert Shell wrapper; Duralam for Spice Islands Herb Spice pouches; James River Corp. for the Fresh Express salad pouch and Sunsweet Pitted Prunes reclosable bag; and Printpack for S.C. Johnson's Glade Potpourri Spray shrink labels and the Snoopy brand Cinnamon Cookies bag.

Correction

In last month's Breaking News, the figure for total cost to packaging end users of the FDA's proposed new requirements for food labels was incorrect. The correct estimate is $1 to $2 billion.

PACKAGING

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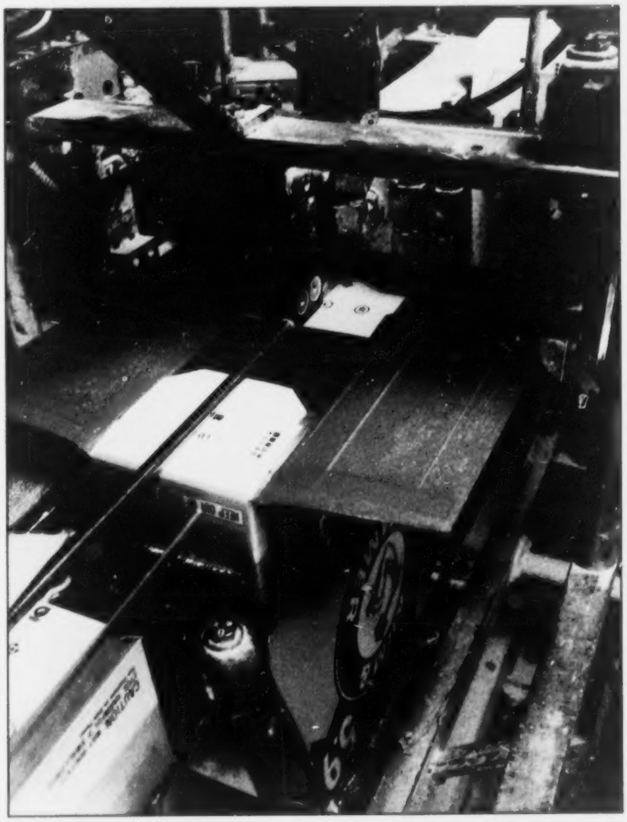
Establishing partnerships with converters can benefit packagers in several ways. Page **34**

New developments in adhesive applicators are helping boost efficiency and save materials. Page **41**



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Co-packer becomes pouch master. Line flexibility, top quality control and good people help contract packager Marietta serve demanding customers.

COMING SOON

- To save money, some end users specify inexpensive materials and expect machinery suppliers to make them work. Is this always a bargain?
- Our Third Annual Packaging Line Planning Guide provides money-saving and timesaving lessons on planning and running packaging lines as shown by successful examples.
- Democrats and republicans vote on packages they like. Part 2 of our exclusive Consumer Survey unveils indispensable marketing information about changes in buying habits and package preferences.

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Plans to expand reach nine-month high

Kermit Baker
Chief Economist
Cahners Economics

The PACKAGING Business Confidence Index climbed a few notches once again in February to reach 63.8, a 2.4-point jump over the January reading.

One sign that the economy will turn around in 1992 is that plans by businesses to expand production are now at their highest level in nine months. Furthermore, even though plans to expand inventory are low relative to expansion plans in other areas, they too are at their highest level in nine months. This is an important breakthrough, given the conservative inventory practices of American businesses over the past year.

With these positive signs, Cahners Economics expects life to be breathed into the expansion by mid-1992. Leading this expansion will be the electronics industry and the manufacturing sector, both good signs for packaging.

Business confidence in the electronics sector reached its highest level in nine months while confidence in manufacturing reached its second-highest level in nine months.

Interestingly, no single economic event has been responsible for this broad increase in business confidence. Perhaps American businesses (and not just the politicians) are caught up in campaign fever.

To test this theory, in our February survey we asked the business community for thoughts on the president's proposals for economic expansion as outlined in his State of the Union address. More than a third of the managers said they believed that President Bush's proposals, if enacted, would have a positive effect. But 54% said they thought his economic program would have little to no impact. Obviously, most believe the economy is poised for recovery independent of actions taken in the political arena.

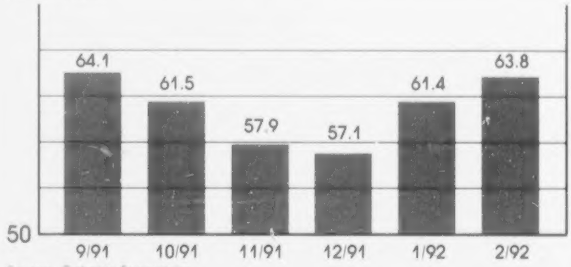
The highest confidence for the future continues to lie in the areas of production/sales, product introduction and R&D.

Looking at total business confidence from a regional standpoint, the Midwest has the most positive expectations for the future with a reading of 66.6, a 4.1-point jump from the January reading. The South and West follow in that order. The Northeast continues to lag behind, but nevertheless remains positive with a reading of 63.1.

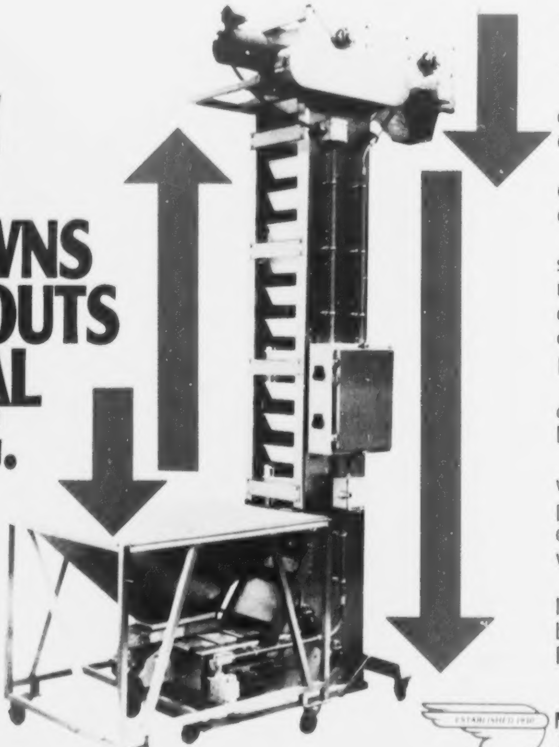
Research assistance:
Lori Brassaw, Economist
Cahners Economics

BUSINESS CONFIDENCE MOVES UP AGAIN

Respondents to the PACKAGING Business Confidence Index survey in February 1992 report further growth in optimism. Note: Any number over 50 reflects more optimism than pessimism.



Source: Cahners Economics



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ENVIRONMENTAL NEWS

Drink Box Heads For Day In Court

A Maine Superior Court judge has ruled against dismissing a court challenge to Maine's ban on aseptic drink packaging. Attorney General Michael E. Carpenter had earlier asked for a dismissal. The ruling will allow the Aseptic Packaging Council to pursue its case contesting the constitutionality of the state's 1989 drink box ban.

The trade association charges in its suit that the ban is "arbitrary and unreasonable" and infringes on both interstate commerce and the industry's constitutional rights.

"We are very pleased with the ruling," says Marshall Cohen, president of the APC. "The Superior Court has indicated a willingness to listen to the facts about aseptic packaging and our commitment to recycling. We now intend to press vigorously for a decision overturning the ban."

Maine's law banning the sale of juice products packaged in aseptic drink boxes was enacted in 1989 and took effect Sept. 1, 1990. The law was based on the state's claim that the packages could not be recycled. According to the APC, the boxes are currently being recycled in 16 states. The state "left us no choice but to sue for the right to sell and recycle aseptic packages in Maine," says Cohen.

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The future of the drink box in Maine will be decided soon.

Recycling Programs Face Cash Crunch

A new independent survey of recycling program administrators and legislators leaves little doubt: The main challenge to such programs in the coming years will be funding.

Alcoa recently commissioned telephone interviews with 300 recycling coordinators, solid-waste and city officials in addition to 75 legislators in curbside-active states.

Overall results show that issues related to funding and markets for collected materials have largely replaced concerns about consumer education and community involvement.

State grants, a significant funding source for almost half the programs surveyed, are melting away. Consumers increasingly are being viewed as the primary source for additional funding.

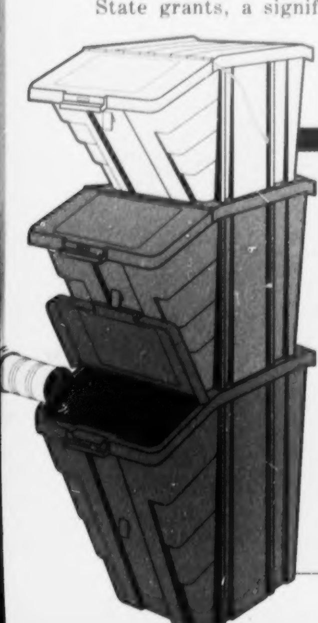
The survey also asked municipal respondents whether or not their communities should encourage residents to purchase packaging that is economically recyclable. Not surprisingly, 89% answered yes. Recycling program goals, funding sources and revenue by material collection were cited as information that should be provided to community residents.

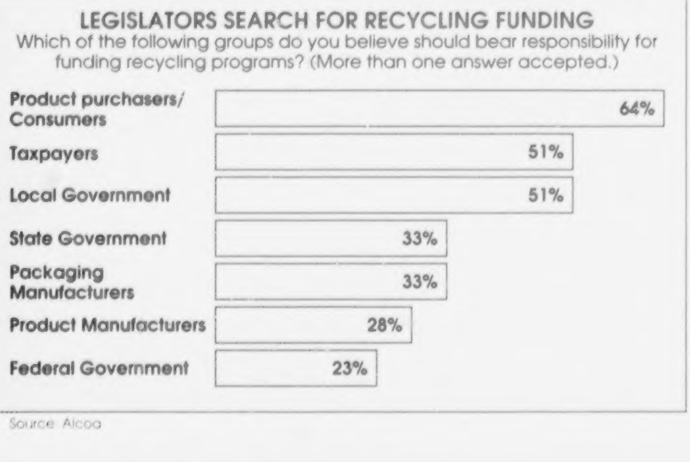
According to the Alcoa survey, legislators in particular reported viewing "taxpayers" and "product purchasers" (most of whom are one and the same) as the chief source of funds for recycling programs. The respondents ranked state and federal governments further down the list of possibilities, along with packaging manufacturers.

When asked which revenue streams should be pursued by municipalities for long-term funding, 40% of legislators polled listed "packaging industry grants," 28% listed "taxes on packaging manufacturers" and 27% chose "taxes on product manufacturers."

The term "packaging grants" refers to funding sources such as the Council for Solid Waste Solutions and NAPCOR, according to a spokesperson for Alcoa.

For more information about the Alcoa survey, circle **241** on the reader service card.





LEGISLATORS SEARCH FOR RECYCLING FUNDING
Which of the following groups do you believe should bear responsibility for funding recycling programs? (More than one answer accepted.)

Source: Alcoa

Recycled Fiber To Appear In Beverage Multipacks

Mead Corp., which describes itself as the world's largest manufacturer of multipacks for soft drinks and beer, will introduce recycled fiber into those beverage carriers by year's end.

The company says it has invested more than $16 million in new recycling capacity and has already made and test-marketed beverage carriers with up to 25% recycled content.

"In addition to the $16 million invested to date, the company will invest even more in 1992 to increase the percentage of recycled fiber in its beverage carrier," says P. Carter Smith, president of Mead's packaging division.

Significant capital investments will be made at Mead's Alabama coated board mill, which manufactures board used in beverage carriers, to expand its capacity for using recycled fiber. This includes post-consumer fiber.

Amway Opens On-Site Recycling Center

The more than 44 tons of solid waste produced each working day at Amway Corp. in Ada, Mich., are being recovered for reuse with the opening of the company's new on-site recycling center.

Amway's new 7,200 sq. ft. recycling center will collect the more than 11,000 tons of waste corrugated and office paper plus scrap plastic, metal and glass generated annually by the $3.1 billion household-products manufacturer.

The bulk of the solid waste is paper products, including corrugated packaging, repackaging scrap and waste office paper. The recycling center will shred this material for packing into 2,000-pound bales for paper mills that market recycled products.

The company also plans to begin using recycled plastic resins in its blow-molded bottles. It already uses recycled corrugated for some packaging.

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PEOPLE

J. Scales

Continental White Cap has named **John Scales** president and CEO . . . **Earl Ritchie** has been appointed president of the Paxall Group . . . **Donald Reichert** has been promoted to president of ABC Packaging Machine Corp. . . . **Ernst Berndl**, manager of Kiener GmbH in Germany, has been named president of Interpack, The International Trade Fair for Packaging Machinery, Packaging Materials and Confectionary Machinery . . . **Roy Gottesman** has retired as executive director of the Vinyl Institute. **Robert Burnett** has replaced him . . . Packaging Corp. of America has appointed **Anthony Bova** to head its Aluminum and Plastics Packaging Group . . . Quantum Chemical Co. has appointed **Robert Wright** director of its specialty polymer business. Also at Quantum, **Karen Walsh** has been named product manager for Quantum Performance Films . . . American National Can has appointed **Warren Serenbetz** to vice president of marketing for Tubes North America . . . J.L. Clark has hired **John Benton** general manager of its Tube Div. in Downers Grove, Ill. . . . Central Products Co. has named **Daryl Kapalin** product manager of the water activated tape division . . . **Victor Ziegler**, president of the West Co.'s Health Care Products Div., has been named director of the company . . . Bemis Packaging Machinery has named **Todd Sandell** marketing manager and **Cindy Skoy** marketing coordinator . . . **James Spall** has been named director of national accounts for the consumer packaging group at De Ster Corp.

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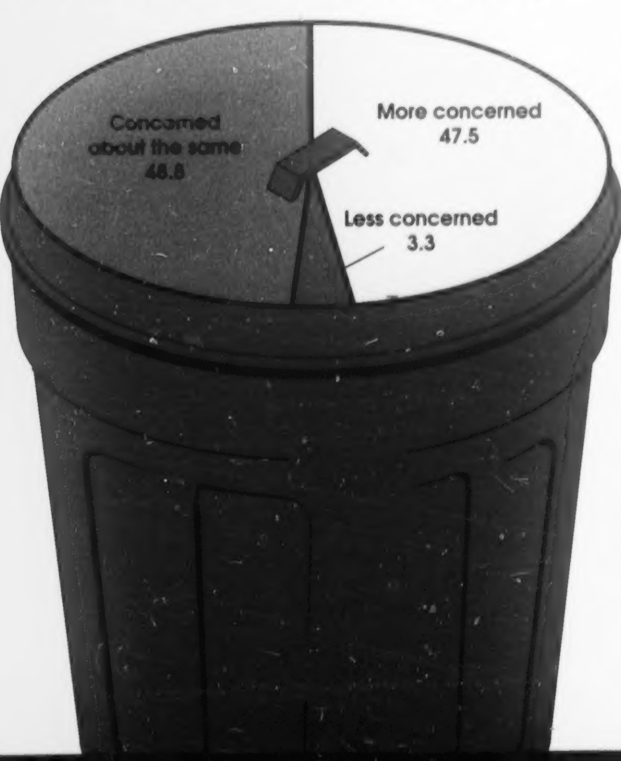
Multicomponent packages for cake frostings provide convenience for people who do their own baking. Page **15**

Do Americans really want less packaging? Part I of our exclusive Consumer Survey reveals "probably not." Page **42**



PACKAGING NEWS

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Conference focuses on MAP potential 1
New technology discussed at FoodPlas '92 is said to deliver 4-8 weeks of refrigerated shelf life for fruit products.

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Multicomponent packs heat up contest 15
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Co-packer becomes pouch master 38
Line flexibility, top quality control and good people help contract packager serve demanding customers.

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New closures keep powders pouring 47
Clever closures can be as tough or as attractive as needed for powders and granular products. Tamper-evident, too.

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PAKEX

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NEXT MONTH

Flexible packaging today: New flexible packages make convenient containers, while winning points for source reduction. We give guidelines on matching materials and machines.

Who will do your R&D? If your packaging R&D budget was a victim of the recession, consultants, research firms and suppliers can help fill the gap.

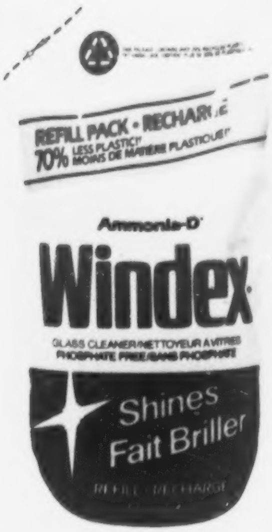
Packaging Line Planning Guide. In our third annual guide, numerous case histories provide money-saving and timesaving lessons on planning and running packaging lines.

COMING SOON

✓ The PACKAGING 100: Our exclusive report tells which materials the top 100 end-user companies are buying to package their products and why. Keep tabs on these trend-makers.

✓ Retailers want packages for cosmetics and personal-care products that help generate rapid stock rotations. Learn what you can do to make that happen in Part II of our series.

Stand-up pouch is a natural fit for liquid refills, as contract packager Marietta successfully demonstrates. Page **38**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PACKAGING CONFIDENCE INDEX

Outlook for new-product intros remains positive

Kermit Baker
Chief Economist
Cahners Economics

The PACKAGING Magazine Confidence Index dipped in March to 63.2, less than one point from the reading in February.

Although expectations in the consumer sector dropped recently, there is no evidence of overall economic backsliding among the nation's business managers. Respondents to our survey believe that better economic conditions lie immediately ahead, and they are confident enough of a recovery to take actions necessary to profit from improved business conditions. The packaging field itself has not lost confidence.

Expectations for research and development in the packaging industry were high through the second quarter of 1991 but began to wane at the end of the year. Expectations for this year have begun to rise again, with businesses feeling the strongest about future developments in the February survey.

A slight downturn was recorded in March but it may prove temporary. The outlook for product introductions remained positive through the first quarter of this year, supporting the continuing importance of research and development.

The construction industry is an industry on the move and any packaging business related to building should be picking up. The highest expectations in the construction industry are expressed by business operators in planned increases in production and inventories.

There has been solid evidence in recent weeks that businesses around the country are beginning to follow through on planned actions reported here in the past few months.

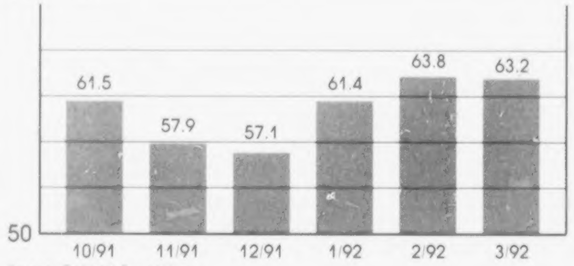
In February industrial production and capacity utilization bounced back. Perhaps most encouragingly as it relates to the depth and sustainability of the recovery, payroll employment surged by 164,000 during February. Average weekly hours and overtime hours jumped sharply.

The Packaging Confidence Index shows industry recovering the optimism it held in mid-1991 and poised for a broadly based recovery. However, the positive outlook we are seeing today is more firmly grounded in economic fundamentals than gains induced by the the post Gulf War-euphoria of last year. Unlike the false recovery in 1991, the current economic growth appears to be the "real thing"—a modest but sustainable recovery that will carry us through 1992 and into an even better 1993.

Research assistance:
Lori Brassaw, Economist
Cahners Economics

INDEX REVEALS SENSE OF CAUTION

Respondents to the PACKAGING Business Confidence Index survey in March 1992 report a slight drop in confidence, perhaps reflecting a lack of willingness to take big chances just yet. Note: A number over 50 reflects more optimism than pessimism.



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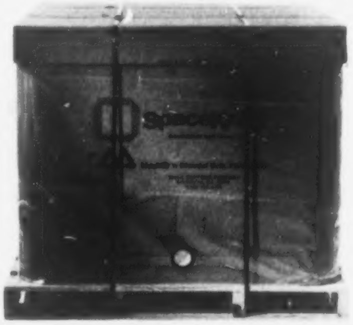

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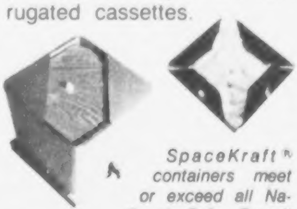
Manufactured by a patented process, SpaceKraft® is continuously wound from 8 plies of 69-pound kraft linerboard and 33-pound A-flute medium. The result: a *seamless* bulk shipper that needs no wood or metal parts—plus uncommon handling ease, strength and disposability. The inner bag is available in a broad range of FDA food grade multi-ply films or coextruded films for specific barrier requirements. All are provided in easy-to-use corrugated cassettes.



SpaceKraft® containers meet or exceed all National Safe Transit Association (NSTA) tests for liquid packaging and are approved by the National Motor Freight Association for shipping nonhazardous liquids.

For information circle 9

ENVIRONMENTAL NEWS

Readers Concerned About Cost Of Recycled Materials, Says Survey

A recently conducted poll of a random sampling of PACKAGING readers indicates many are concerned about the cost of using recycled materials. Despite the cost, more than a third feel compelled to use recycled materials for public relations reasons.

In response to another question, over 40% of readers expect their suppliers to take back their own containers when empty.

PACKAGING mailed questionnaires to a random sample of 2,000 readers. Nearly 200 replied. Recipients were given a list of statements related to environmental issues facing the packaging field and were asked to indicate to what extent they agreed or disagreed.

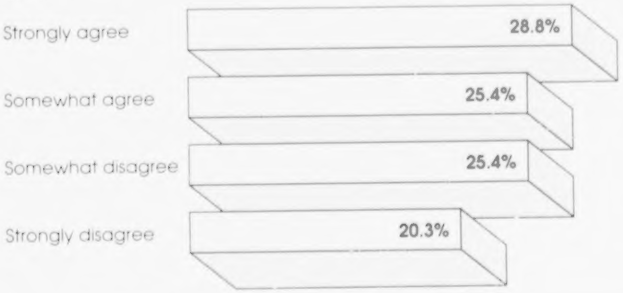
Slightly more than half of the readers who responded agreed with the statement, "I would be willing to use recyclable materials in my operations only if they did not increase my cost at all."

Yet a third agreed with the statement, "I find it necessary for PR reasons to buy recycled materials even though they cost more than I want to pay."

Also, readers indicated that they're eager for their suppliers to share some of the environmental responsibility. Eighty-four percent agreed with the statement, "I expect my suppliers to ship their products to me in environmentally friendly containers." In addition, more than 42% said that they expected their suppliers to take back their containers after use.

DON'T BOOST MY COSTS

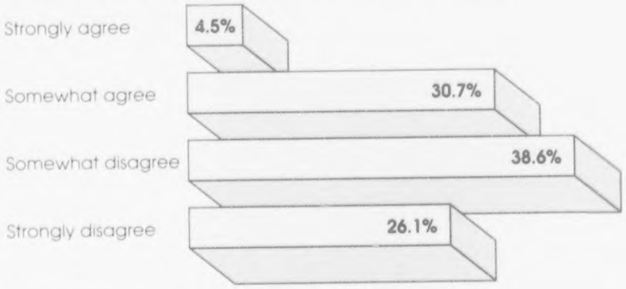
Slightly over half of those polled agreed with the statement 'I would be willing to use recyclable materials only if they did not increase my cost at all.'



Source: Cahners Publishing Co.

BUYING RECYCLED: POLITICALLY CORRECT?

One-third of respondents said they either somewhat or strongly agreed with the statement 'I find it neccessary for pr reasons to buy recycled materials, even though they cost more than I want to pay.'



Source: Cahners Publishing Co.

Paper Scrap Becomes Giftable

The U.S. representative of an innovative Japanese company has devised a process for converting unwaxed kraft scrap into attractive, upscale-looking gift packaging.

PAX USA Inc., representing PAX Co. Ltd. of Japan, uses kraft trim left over from milk carton converting to make a stiff cream or ivory colored board for promotional and gift packaging. Revlon, Neutrogena, Christian Dior, Estee Lauder and Crabtree & Evelyn are some of the cosmetic and fragrance companies that have used packaging made by PAX.

The company also specializes in wood and fiberboard packaging, and has introduced gift packaging made from waste fax and thermal paper. For more information, circle **241**.

Papermaker uses kraft trim from milk carton production to make decorative paper for gift packaging.

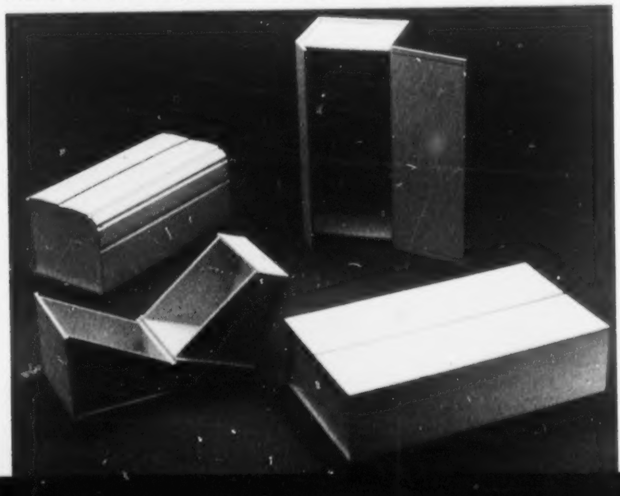


Photo Waste To Generate Megapounds Of Scrap Plastic

Can't find enough scrap HDPE and PS for your recycled-content products? Kodak is riding to the rescue.

The company says its new program for collecting plastic discs, cartridges, canisters, lids and spools from film processing labs will generate millions of pounds of reprocessed PS and HDPE starting this spring. Products collected will also include Kodak single-use cameras.

The film waste does not have to come from Kodak products, so all photo labs in the U.S. are eligible to participate.

"Individual labs have often found it difficult to locate recyclers," says Robert F. Bell, manager of environmental programs for Kodak's Consumer Imaging organization. "The film container recycling program makes regional recycling centers available to every lab and simplifies the effort for retailers and finishers."

Recyclers selected by Kodak in the East, Midwest and West will process the waste, cleaning and separating the plastics by resin and then grinding and pelletizing them to buyers' specifications. Recyclers will establish their own markets for the reclaimed materials.

It's estimated that the Kodak program will keep 10 million pounds of plastic and steel out of landfills each year. It also will reduce photofinishers' tipping fees and transportation costs associated with disposal.

"Every bit of solid waste we can keep from landfills will help . . . preserve our environment," says Bell. "The Kodak film container recycling program is an important step."

"Individual labs have often found it difficult to locate recyclers."

WILL AMERICA SETTLE FOR LESS PACKAGING?

We don't think so. Consumers criticize wastefulness but don't change their buying habits.

Greg Erickson
Editor in Chief

Nobody likes to have anything he does called redundant. But that's exactly the term a reporter for *The New York Times* used recently to describe some forms of packaging.

Redundant packaging, he said, includes "perfume bottles . . . that are in turn covered in plastic wrapping; single-serving foods that produce far more waste packaging per ounce of edibles than larger-sized servings, and compact disks sold in packages ten times the volume of the disk itself."

The *Times* piece mentioned one scheme for legislating trash reduction as it applies to packaging. "It would mandate," said the reporter, "that no more than a certain percentage of the total volume of an item [be] package rather than the product itself."

Understandably, that frightens many product manufacturers—especially those in foods and pharmaceuticals. Restrictions imposed so as to lower the volume of discarded packaging could inadvertently raise the volume of discarded product.

Yet several influential product marketers—mostly from outside the foods and pharmaceuticals industries—are cutting back on packaging without being ordered to do so by government and are reaping measurable benefits.

■ The music industry recently announced plans to phase out the much maligned paperboard "longbox" for compact discs.

■ Paperboard cartons used by marketers of personal-care products are being eliminated or redesigned for increased efficiency. (See New Packages this issue.)

■ Sears, Roebuck recently made headlines with its source-reduction goals, saying it would work with its suppliers to cut packaging overall by 25% between now and 1994.

Do American consumers really want a lot less packaging? Will they vote with their pocketbook against unrestrained packaging "redundancy"?

To find out, we included a number of questions about packaging's environmental impact in our exclusive 1992 Consumer Survey. Working with National Family Opinion, a highly respected consumer-research organization, PACKAGING mailed questionnaires to a demographically accurate sample group of 1,000 consumers nationwide. More then 750 recipients responded with answers to three dozen questions.

This, our 8th annual survey, revealed an intriguing evolution in attitude.

Still a bad guy

Asked whether their level of concern about trash had gone up this year compared with last year, nearly half of our respondents said yes. Only 3% said they were less concerned.

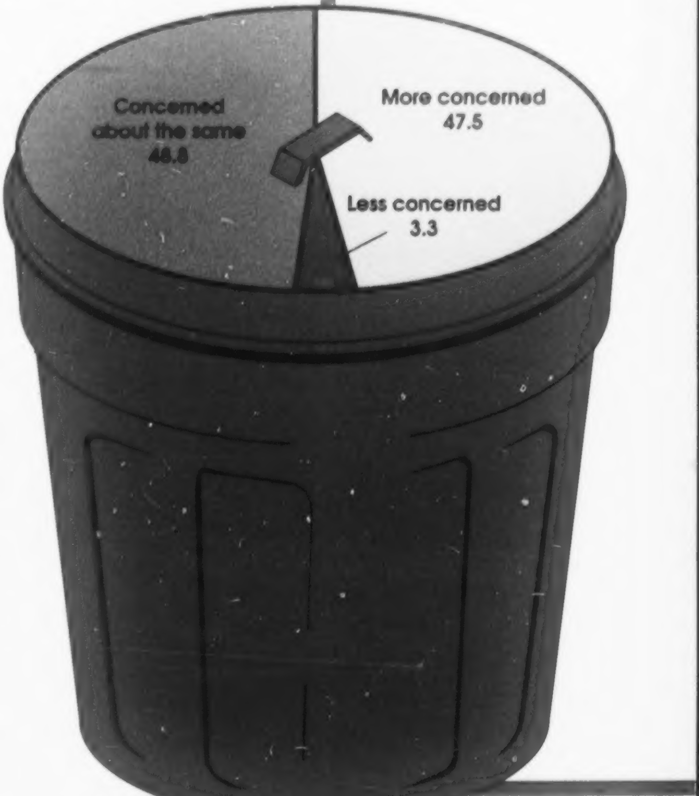
Do consumers still think of packaging an as environmental bad guy? Yes, but not quite as bad. Asked how much of the trash they discarded was made up of packaging, consumers reported an increasingly realistic view: The percentage of respondents saying less than half rose; the percentage saying more than half fell. The key word in that question might be "discard," since the consumer might not define "discarding" as putting things in a recycling bin.

CONCERN ABOUT THE TRASH PROBLEM CONTINUES TO INCREASE

Question: How do you feel about the trash problem this year compared with last year?

There's been little decrease in the consumer's concern about the trash problem 1991-1992, despite accomplishments in recycling.

(Percent respondents)

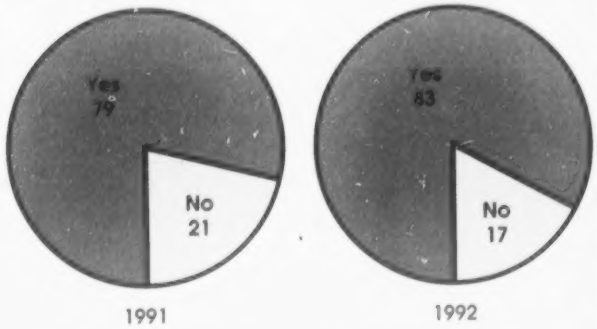


8th ANNUAL CONSUMER SURVEY PART 1

CONSUMERS SEE OVERPACKAGING ON THE RISE...

Question: Do you think some products use too much packaging?

(Percent respondents)

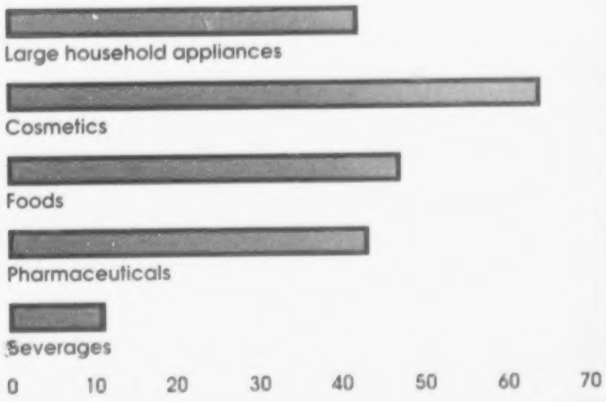


...AND SEE COSMETICS AS THE BIGGEST CULPRIT

Question: Which products do you think use too much packaging?

Base: Percent saying they think some products are overpackaged.

By far, cosmetics are the products most often cited by consumers as examples of overpackaging. From 1991 to 1992, consumers also saw a big jump in overpackaging in the pharmaceuticals segment.

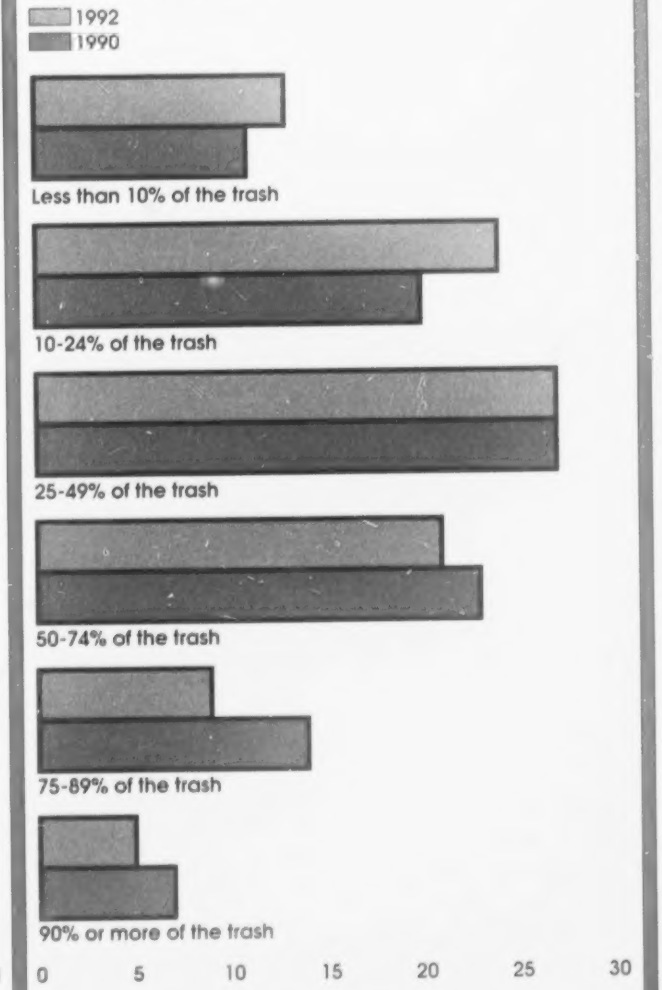


ESTIMATE OF PACKAGING IN TRASH MOVES CLOSER TO REALITY

Question: How much of the trash you discard is made up of packaging?

Between 1990 and 1992, the consumer's estimate of the packaging component of trash has taken a turn for the realistic – and better.

(Percent respondents)



Overpackaging is a growing problem, according to consumers. Last year, 79% of our respondents answered yes to the question, "Do you think some products use too much packaging?" The percentage anwering yes went up by more than four points this year.

Of the respondents who said they believed some products were overpackaged, "household appliances," were cited by more than half of our respondents in 1991 but less than half this year.

Results for the foods category remained unchanged year to year, but the percentage of respondents saying they felt pharmaceuticals were overpackaged jumped a surprising 10 points 1991-1992.

The biggest change affects the cosmetics industry: Fully 64% of our respondents called cosmetics overpackaged this year, up 13 points from 1991.

Hitting a plateau

Clearly, consumers can help solve the trash problem by making less trash, thereby easing the burden on landfills, incinerators . . . and recycling centers. They've surely heard that from every direction. And they know—or *think* they know—overpackaging when they see it. So are they changing their buying habits? In a word, no.

Consumers told us they were no more willing this year than last to reject overpackaged products as a means of reducing packaging waste. Nor were they more willing this year than last to buy "recyclable" packages.

The chart showing how often the recyclability of a package influences purchase decisions reveals a plateau. What accounts for this? Perhaps it's the prevalence of recycling: Consumers may have begun to think of everything as recyclable, so a search for recyclable containers is not necessary. Perhaps it was the recession—a time when consumers were more worried about being able to afford a product purchase than the trash that might result. (Our survey was conducted last January, when things looked worse economically than they do now.)

9% of our respondents called environmenal claims on labels "dishonest."

COMING IN JUNE:
CONSUMER SURVEY PART TWO

In June PACKAGING will publish additional results from its exclusive 1992 Consumer Survey.

We'll discuss changing attitudes on a wide range of packaging topics including the sales potential of single-serve food containers, demand for convenience in pharmaceuticals containers . . . and even whether more Republicans than Democrats like their beer in aluminum cans.

In addition to the June article, copies of the complete tabulations—more than 300 pages' worth—will be available for purchase.

For more information, contact:

Consumer Survey Editor
PACKAGING Magazine
Cahners Publishing Co.
1350 E. Touhy Ave.
P.O. Box 5080
Des Plaines, IL 60017-5080

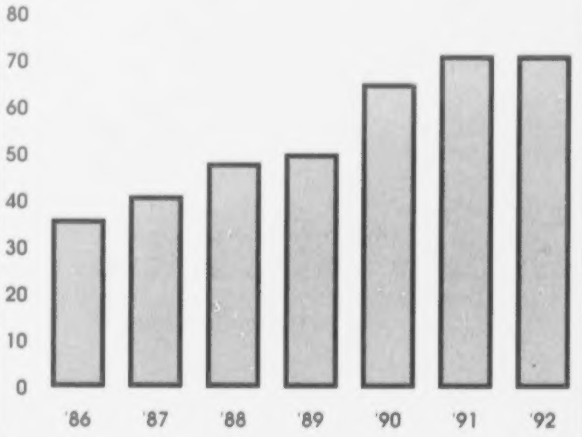
The never-ending quest for top convenience may be significant, too. To make recycling work, a consumer has to stay abreast of local government recycling requirements, examine specific packages with an eye toward their relative recyclability . . . and then go to the trouble of actually recycling them. This is not convenient.

IMPORTANCE OF RECYCLABILITY IN PURCHASE DECISIONS LEVELS OFF

Question: How often does the recyclability of the package affect your decision to buy one product over another?

Base: Percent answering "Often/Sometimes"

For only the second time since 1986, package recyclability as a factor in product purchase decisions hit a plateau this year.



What *is* perceived as being particularly convenient, a good buy and, maybe, good for the environment is the concentrate. As Procter & Gamble among others has discovered, downsized cartons of concentrated powders and miniaturized bottles of concentrated liquids attract attention.

Our survey shows that consumer interest in concentrates is growing significantly. Willingness to purchase concentrated products, specifically as a strategy for minimizing waste, jumped a dramatic 11 points 1991-1992.

The consumer may be buying concentrates because they are easy to carry, take up little space in the laundry room or cost less than competitive formulations. But the decision to buy concentrates has some bearing on the "overpackaging" issue also: All other things being equal, the more concentrated a product, the smaller and more responsible-looking its package.

As we've reported, lawmakers and lawyers around the country have publicly attacked as misleading many environmental claims made by products marketers. Respondents to PACKAGING's 1992 Consumer Survey reported similar opinions.

Asked which terms best described environmental information on product labels, nearly 36% of our respondents said "misleading" and "confusing." An even higher percentage said environmental claims were "insufficient." And more than 9% called them downright "dishonest."

On the other hand, there appears to be nothing misleading, confusing or dishonest about containers that—because of up-to-date designs—conserve packaging material. ■

PLEASE RATE THIS ARTICLE

How would you rate this article? To reply, circle the appropriate number on the reader service card:

Outstanding	551
Above Average	552
Average	553
Below Average	554

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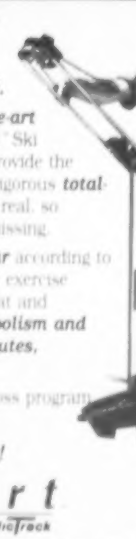

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PEOPLE

R. Baert

R. Meyer

Andrew Smith has been named CEO of Rexene . . . **Rita Bahner** has been named executive director of the Food Processors Institute . . . Seaquist Closures has named **Robert Dealey** director of engineering . . . **Hap Hoover** has been appointed president and general manager of IPC North America . . . **William Avery**, chairman, president and CEO of Crown Cork & Seal has been elected a director of the West Co. . . . International Corrugated Packaging Foundation has elected **J. Richard Troll** as president . . . Weirton Steel has announced the retirement of **Lawrence Isaacs** from its board of directors and the appointment of **David Wang** as successor . . . **R.J. Meyer** has been named president of Packaging Equipment and Materials Co. . . . Arrow Industries has promoted **Steve Rosenberg** to president . . . Eagle Packaging Group has appointed **Raymond Baert** to director of manufacturing . . . H.S. Crocker has named **Steven Campbell** president . . . **Albert Boese** has been appointed vice president and general manager for Alford Industries' consumer packaging and color prelude divisions . . . **H. Ray Looney**, president and CEO of Ball-Incon Glass Packaging, has been elected a group vice president of Ball Corp.

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THE CAHNERS MAGAZINE FOR DECISION-MAKERS/MAY 1992

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Meeting New Consumer Demands

Choosing Materials

Growing With Pre-Made Bags

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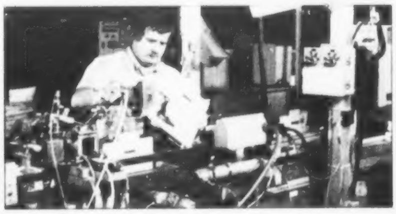
Style Vegetables • Chicken • Yoshida Oriental-S
Dark Meat
KEEP FROZEN
Fully Cooked
Complete Kit
Makes
2 Servings
10.6 oz. each

Third Annual Packaging Line Planning Guide


CASE HISTORIES OFFER REAL-WORLD ENGINEERING TIPS

Is Your Company Falling Behind In Package R&D?

PLUS—
How To Select Pallet-Unitizing Systems

PACKAGING

A CAHNERS PUBLICATION
VOLUME 37 NUMBER 6

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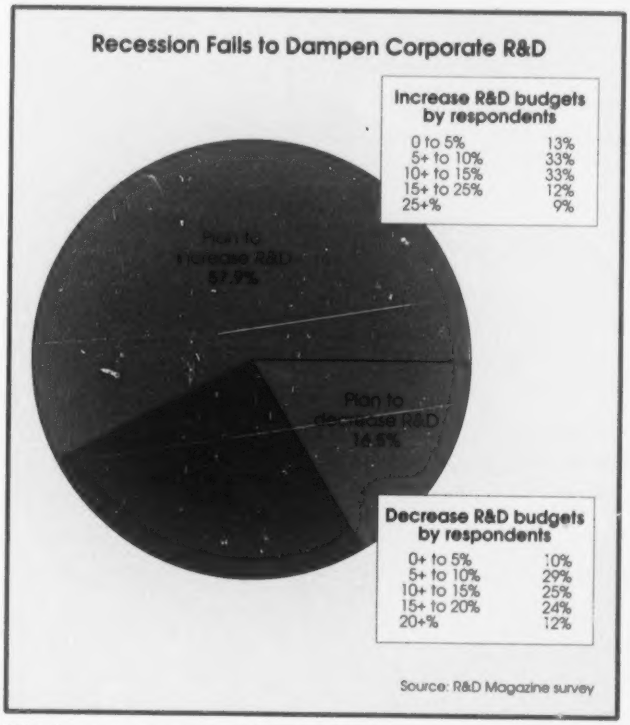

Source: R&D Magazine survey

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1 DOSE
2ème DOSE
alsa
PRÉPARATION POUR
crème anglaise
REUSSIE EN
2 DOSES

Compartmentalized pouch separates two premeasured portions in one three-layer package. Page **16**

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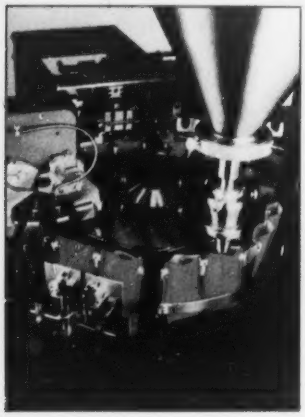

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NEXT MONTH

Exclusive Consumer Survey: Consumers vote for value. Part II of our 8th annual survey reveals demands for truly informative labeling, traditional packaging for OTC drugs, more tamper-evidence . . . and help in stretching the dollar.

COMING SOON

✔ Quality certification partnerships are easy to talk about, difficult to attain. SPC, certified vendors, Demming, Crosby and Baldridge—are they making a tangible difference in the packaging field?

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PACKAGING CONFIDENCE INDEX

Business optimism rises as consumer confidence grows

Kermit Baker
Chief Economist
Cahners Economics

The Packaging Magazine Business Confidence Index increased 2.6 points in April to 65.8. This rise marks a solid upward trend for the index, to a level 0.3 points above the highest value of the index. This upward movement points to a strong presumption that the unfolding recovery in the industrial sector of the U.S. economy is sustainable.

Businesses are already seeing a more favorable business environment and plan to take advantage of it. Two-thirds of the total businesses surveyed are planning production or sales increases over the next three months.

Companies involved in packaging rate production and sales as the business area in which they feel the most optimism in the near future, giving it a confidence reading of 79.7. Product introductions is another area of high optimism, following closely behind sales with a confidence value of 76.7. There should be no shortage of either introductions or production in the next few months.

Easing the credit crunch

A special question in the April survey asked respondents which of the following would do the most to help their business this year: capital gains tax cut; investment tax credit; lower interest rates; or easing of the credit crunch in the banking system. Of concern to the packaging industry are the opinions of consumer products and general manufacturing companies.

Easing the credit crunch was the most popular option for consumer products companies since they are more immediately concerned with generating demand from their customers. Manufacturers of consumer products are also concerned with interest rate levels and credit availability for customers.

Businesses in general manufacturing are more likely to prefer an investment-oriented option.

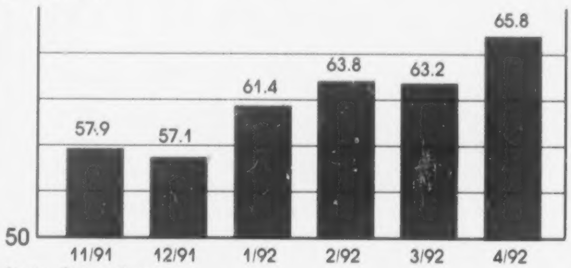
Forty-seven percent of respondents from general manufacturing preferred an investment tax credit or capital gains tax cut.

These businesses often are more sensitive to attracting capital for expansion or modernization and therefore are looking for initiatives that encourage greater levels of investment in their companies.

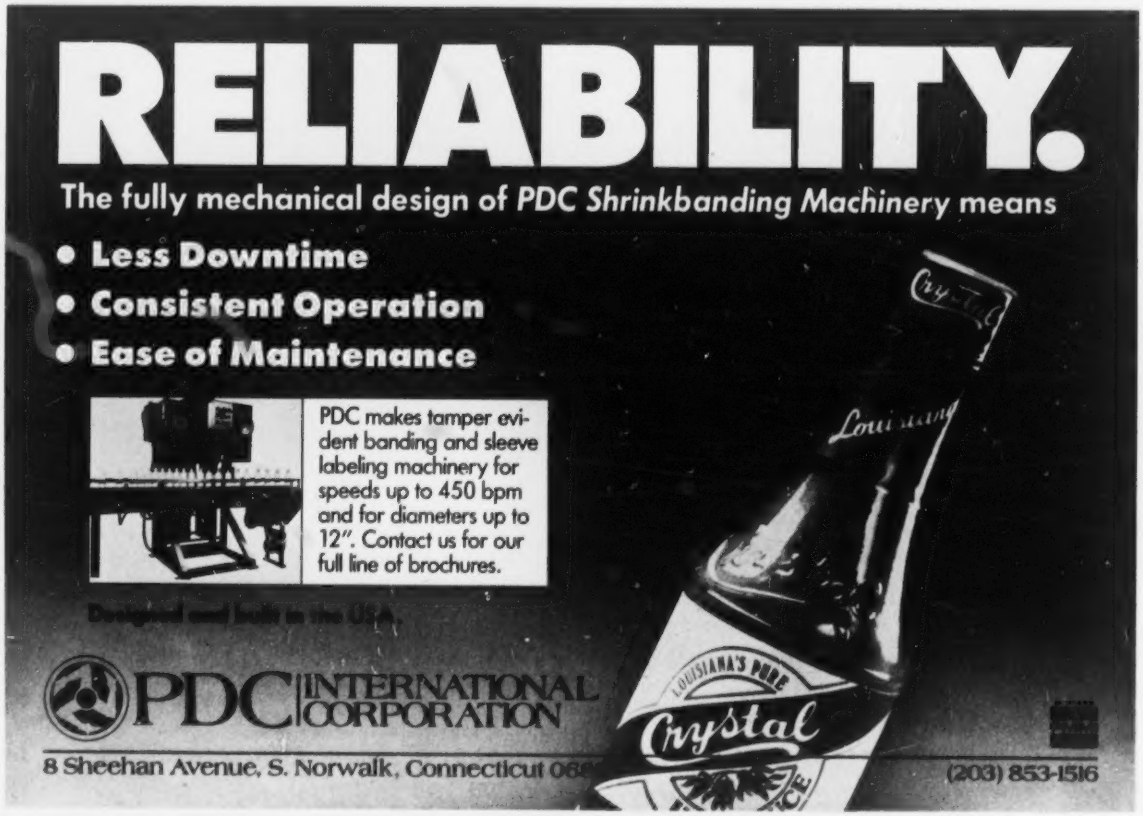
Research assistance:
Lori Brassaw, Economist
Cahners Economics

INDEX REVEALS NEW WAVE OF OPTIMISM

Respondents to the PACKAGING Business Confidence Index survey in April 1992 report a significant rise in confidence. Note: Any number over 50 reflects more optimism than pessimism.



Source: Cahners Economics



RELIABILITY.

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For information circle **71**

PEOPLE

D. Pastrich

Alusuisse Flexible Packaging has promoted three executives to Director of Sales and Marketing: **David Pastrich**, labels and specialty products unit; **Richard Dougherty**, food packaging unit; and **Charles Cordeau**, healthcare packaging unit . . . Marsh has announced several management changes: **John A. Marsh** has been elected chairman and CEO; **Thomas Barnett** has been elected president and COO; **P.J. Wagner** has been named vice chairman and vice president of sales and marketing; **James King** has been elected executive vice president and vice president of operations; and **Audrey King** has been elected senior vice president . . . Westvaco's president and CEO, **John Luke** has been named Papermaker of the Year by *PaperAge Magazine* . . . **Joseph Strickland** has been appointed president of Amoco Foam Products . . . Flexcon has promoted **Martin McDonough** to market development manager, packaging . . . Mead has elected **William Shanahan**, chief operating officer of Colgate-Palmolive, and **Lee Styslinger**, chairman of Altec Industries, to the board of directors . . . Allen-Bradley has named **Rex Ferguson** vice president and general manager of its new Standard Drives Div. and **Jon Simons** vice president and general manager of its new Drive Systems Div. . . . Nadel Industries has appointed **William Kezema** executive vice president . . . Plastofilm Industries has promoted **Tony Beyer** to vice president of manufacturing and **Rich Partlow** to vice president of sales and marketing.

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SPECIAL ELECTION ISSUE

8th Annual Poll Shows Consumers Vote For Value

New Engineering Section Inaugurated

- ★ Line Operations
- ★ Marketplace
- ★ Management Essay

Mini buyers guide to T-E banding systems

Cast Your Ballot In Innovator Competition

Pro-Recycling Group Starts Mail-It-Back Container Campaign

PACKAGING.

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New slogan from consumers: "We want value!" Page **30**

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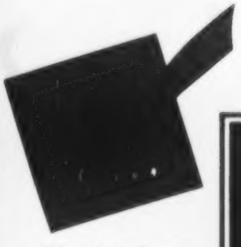

Check out our innovator award finalists. Nominate your favorites to win. Page **53**

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PACKAGING CONFIDENCE INDEX

Small dip in confidence is actually a good sign

Kermit Baker
Chief Economist
Cahners Economics

The PACKAGING Business Confidence Index fell 0.6 point to 65.2 in May, reflecting some of the softer economic statistics we have seen over the past month.

The decline of less than one point should not be interpreted as a precursor of declining economic conditions as was the case a year ago.

Today, more than half (50.5%) of businesses rate current business conditions as good or excellent—the same number as last month. Perhaps more important, nearly 88% of the business managers this month say they expect overall economic conditions to improve over the next 90 days.

In response, more than three-quarters of business managers plan to increase production—a number that's down from April's overly optimistic 82%. Overall plans to increase inventories continue to grow—reaching a high of 57.9% in May. When businesses plan to increase inventory, that's a strong indication of their confidence.

Unlike last summer, this upturn is being led by the consumer sector. Manufacturers of consumer goods including a wide range of packaged products are showing their optimism by the high confidence numbers they posted in the May survey, the highest of any sector at 66.3.

Two-thirds of managers in consumer-goods industries say they plan to increase business activity over the next three months. The strong growth in retail sales during the first months of 1992 supports the optimism in the consumer sector.

Lower consumer debt due to consumer prudence and three months of increases in personal income have led to advances in both consumer confidence and spending. Confidence has increased 24.3 points since February with the latest reading measuring 71.6 (index 1985 = 100).

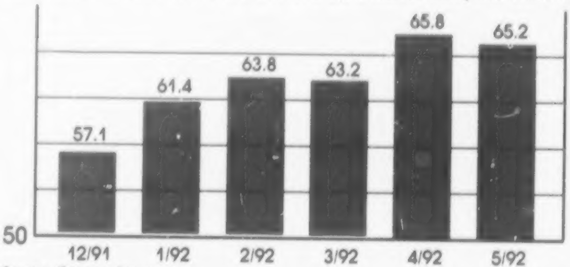
Consumer spending, a vital piece of the recovery, had been wavering for most of 1991 but showed strong signs of an upturn in the first quarter of the year with a seasonally adjusted annual growth rate of 5.3%.

Spending gains were seen in both durable and nondurable goods. Total spending is expected to be up about 2.6% by the end of the year. Demand from packaging's endmarkets and business expectations should continue to climb throughout the summer.

Research assistance:
Lori Brassaw, Economist
Cahners Economics

INDEX REVEALS
SLIGHT DROP IN OPTIMISM

Respondents to the PACKAGING Business Confidence Index survey in May 1992 report a slight drop in confidence. Note: Any number over 50 reflects more optimism than pessimism.



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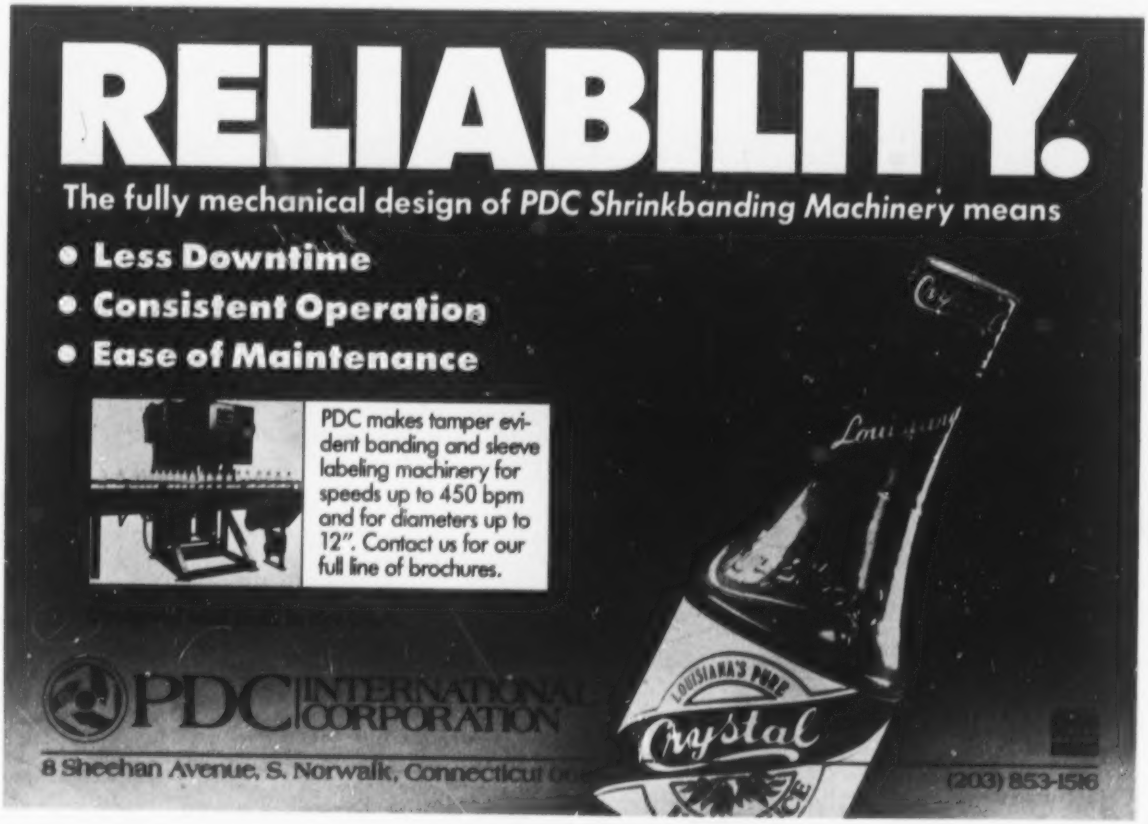
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38 Bottles Do Not A Crisis Make

An ongoing campaign is urging California residents to mail empty plastic containers directly to the headquarters of the Society of the Plastic Industry in Washington, D.C., as a protest against plastic container recycling problems. So far the campaign has produced lots of press but no huge piles of containers.

Take the wrap

According to Colleen Dietzel of the San Diego chapter of the California Resource Recovery Assoc., the campaign of printed fliers and cut-out mailing labels, dubbed "Take The Wrap" gives consumers a means of expressing their frustration about the lack of markets for recycled plastic containers. She added that her group supports minimum-content laws to stimulate markets for post-consumer plastics.

She says SPI was targeted for the campaign "because frustrated Californians are getting mad at their local recyclers and state and local governments, and we're trying to channel that frustration to the plastics industry itself—where we feel it belongs." SPI devised the recycling code molded into the bottom of most monolayer plastic containers.

The group feels the codes mislead consumers into thinking all plastics bearing the chasing arrows are readily recyclable.

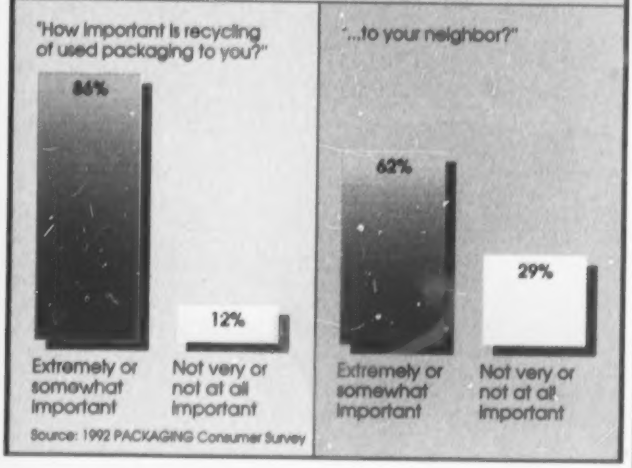
38 so far

Although Dietzel said she passed out reams of flyers to interested consumers during the state's recent Earth Day celebrations, only 38 plastic containers have arrived at SPI's offices, according to Susan Moore, director of communications.

"I guess everyone on that San Diego committee has sent a bottle—that's about it so far. This was their attempt to, in effect, create a crisis where there isn't one," she says.

Moore, who has worked with hundreds of communities to develop curbside programs and has conducted nationwide focus groups, says that the average consumer, when properly educated about curbside collection, does a good job of sorting and recycling the proper materials.

"Some recyclers are getting junk, to be sure," she says. "But our experience is that contamination rates from nonrecyclable materials are near zero when people are properly educated on what to put in their bins."



THE CURBSIDE GAP

Our exclusive 1992 Consumer Survey indicates a clear gap between consumers' concerns about recycling and how they say their neighbors feel. Veteran pollsters say the latter figures often more accurately reflect true attitudes.

Source: 1992 PACKAGING Consumer Survey

Recycling Habits: Ask Me, Ask My Neighbor

PACKAGING's exclusive annual Consumer Survey turned up some interesting consumer attitudes on recycling habits.

Each year we ask consumers, "How important is the recycling of used packaging to you?" Respondents answer "extremely important," "somewhat important," "not very important," or "not at all important." Our latest survey indicates that nearly 90% of those polled feel that the recycling of used packaging is either extremely or somewhat important to them.

However, this year's survey also shows that our respondents don't feel recycling is nearly as important to their neighbors. When asked "How important is the recycling of used packaging to your neighbor?" only 62% answered "extremely important" or "somewhat important."

The implications of this gap are debatable. Recycling participation is now seen as politically correct, and it may be that consumers simply feel their sense of responsibility is superior to that of their neighbors. However, some professional pollsters believe that in studying social behavior, an accurate indicator of reality is obtained by asking individuals how their neighbors feel.

Task of Managing Steel Drums Falls To Suppliers

As a new program announced by Sealed Air Corp. illustrates, packagers of bulk chemicals and other bulk products are increasingly shouldering the responsibility for collecting, cleaning and recycling or reusing the drums used to ship their products.

Sealed Air has contracted with a group of the largest steel drum reconditioners and motor freight carriers to pick up and transport empty drums of Instapak brand foam-in-place polyurethane to approved reconditioning facilities. There the drums are cleaned and refurbished.

If a drum is damaged or cannot be reused, it is cleaned and converted into scrap steel. "We've upgraded the gauge of steel used in manufacturing our drums," says Bill Gray, director of marketing for the Engineering Products Div. "As a result, the drums have a higher reclaim value."

Sealed Air's Instapak customers call a designated freight carrier to report that their 55-gallon drums have been dripped dry, recapped and made ready for pickup. "The program addresses two issues," says Gray. "It provides our customers with a responsible method of drum management and enables us to reeducate them on how to properly prepare the drums for recycling or disposal purposes."

There's a growing trend toward this kind of cooperative arrangement. Thorvald R. Larson Jr., president of the Steel Shipping Container Institute, says several states including Califor-

Continued on next page

Empty drums of foam-in-place cushioning get collected and recycled under Sealed Air's new program.

CONSUMERS VOTE FOR VALUE

Our 8th annual analysis reveals top demands: informative labeling, plastic bottles for OTC drugs, more tamper-evidence and especially value for the money.

Mark Spaulding Senior Editor

Value, value, value. It is *the* product marketing theme for these uncertain times. Giving consumers more than they expect and providing solid guarantees to justify higher prices seem to be crucial to market success.

In preparing PACKAGING's exclusive 1992 Consumer Survey, as in years past, we mailed questionnaires to 1,000 consumers nationwide. More than 750 responded, generating hundreds of pages of data. Invaluable assistance was provided by National Family Opinion, a widely respected leader in the field of opinion research.

This year, answers to our questions on consumer attitudes about packaging reveal subtle—as well as dramatic—shifts toward packaged goods offering greater value. That comes as no surprise: According to government statistics, real disposable income is now about half what it was 10 years ago.

The move toward value shows itself most clearly in three areas: demands for more informative labeling, strong preferences for tried-and true pharmaceutical packaging and a mandate for greater use of tamper-evident devices for both foods and OTC drugs.

Label reliance down

One trend is obvious. Consumers in general, and younger consumers in particular, are relying little on labeling when choosing a food product. Questionable dietary claims on food packages, headlines about proposed FDA requirements for expanded nutritional information and recent government concerns related to product shorting seem to have diluted consumers' trust.

Young parents rely the least on labels. Retired older couples, on the other hand, express the greatest reliance. (See chart.)

Fewer consumers this year than last think of nutritional information on package labels as being "informative." Only 48% chose this adjective—down from 53%.

Only about one-third of respondents said food-label information was "valuable," "accurate" or "sufficient." In fact, when asked about other words that best describe nutritional data, negative terms such as "confusing," "misleading" and "insufficient" stood out.

Young singles were the most negative. Exactly 50% say such label information is misleading; 48% say it's confusing and almost 17% say it's downright dishonest.

Action plan: Pay close attention to the image your label conveys as well as the specific claims you make. Be sure the information is more than adequate, correct and easily understood.

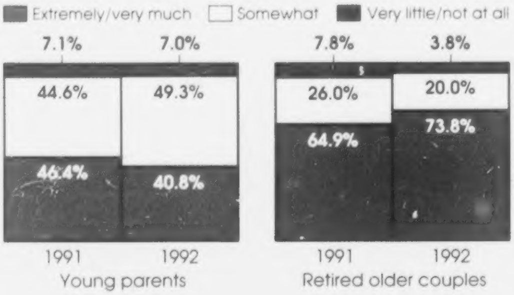
The tried-and-true

We asked consumers to judge package types for

YOUNG PARENTS RELY THE LEAST ON FOOD-PRODUCT LABELS...

Of all those surveyed, young parents are the group which relies the least on food-label information. Retired older consumers place the greatest reliance on such information.

Question: How much do you rely on labeling when choosing a food product?

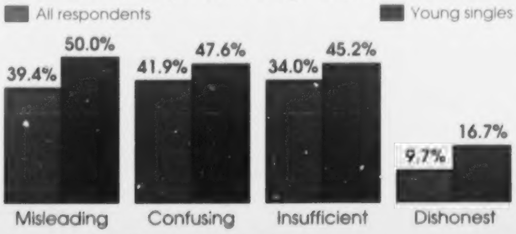


...AND YOUNG SINGLES FIND FAULTS WITH NUTRITIONAL INFORMATION

Compared to all respondents, young singles are the most negative when it comes to describing the nutritional information on food packages.

Question: Which terms best describe food-label nutritional information?

Percent of 1992 respondents using these negative terms



Source: 1991-1992 PACKAGING Consumer Surveys four different OTC drugs. Unquestionably, as consumers age their preference for familiar, easy-to-open, easy-to-dispense packages increases. (See chart below.)

What type of container is preferred by all groups for OTC pharmaceuticals? The vote overwhelmingly is for plastic bottles.

While this choice may be an expression of demand for convenience, it also seems to show a desire for the extra value such containers provide. A quick perusal of pharmacy shelves reveals that the same product packaged in plastic bottles often costs less per unit of use than those packaged in blisters.

Action plan: Target products for older consumers in familiar, wide-mouth plastic bottles or glass containers. Try blister packs when marketing to younger consumers, no matter what OTC drug you package.

Make it T-E

Again this year we asked consumers to indicate the importance of certain package characteristics when purchasing various products. The result: Demand for tamper-evidence is clearly an area where the desire for greater value underlies package preference.

In food, packages that preserve flavor and taste continue to rank as the top demand. But a tamper-evident food container is just as important to 85% of the same respondents. And not surprisingly, 91% of respondents rate tamper-evident containers for OTC drugs as highly important.

Action plan: If your package is tamper-evident, emphasize it on the label. Don't have tamper-evidence for your food package yet? Investigate it now.

Along with all this, con-

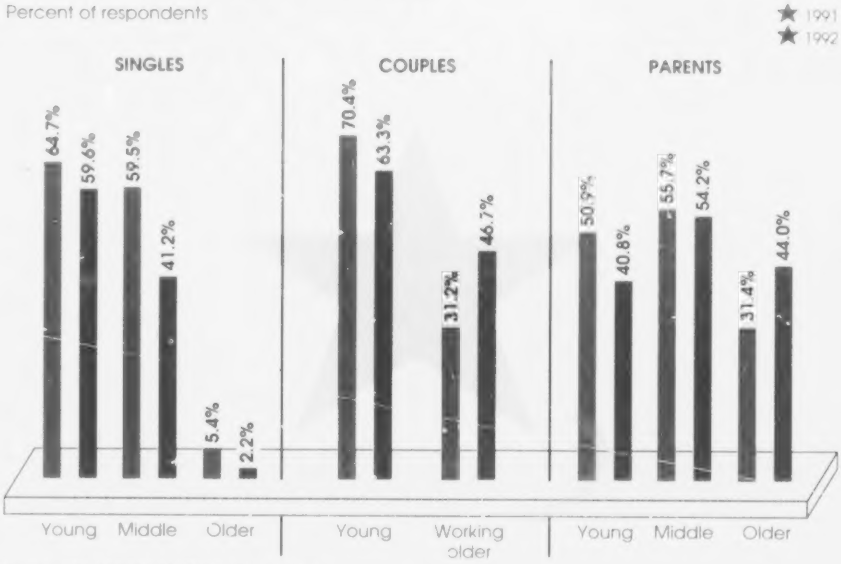
Microwave use at work declined significantly for many lifestages

LESS LUNCH-ZAPPING AT WORK

More cold sandwiches? Microwave use at work declined significantly for many lifestages but increased for older couples and older parents.

Question: Do you use a microwave oven at work?

Percent of respondents



Source: 1991, 1992 PACKAGING Consumer Surveys

CONSUMERS PREFER PLASTIC BOTTLES FOR OVER-THE-COUNTER DRUGS

Consumers prefer plastic bottles for OTC pharmaceuticals by a wide margin. Blister packs for allergy medicines are more popular than glass containers while glass is almost as well-liked as plastic bottles for cough remedies.

Question: Which type of packaging containers would you prefer for each of the pharmaceutical products listed?

Percent of all respondents

PRODUCT	PLASTIC BOTTLES	GLASS BOTTLES	"BUBBLE" OR "BLISTER" CARD
Vitamins	65.4%	23.9%	9.8%
Pain relievers	62.3%	20.4%	16.3%
Allergy medicine	52.4%	21.5%	24.0%
Cough remedies	45.1%	41.1%	12.9%

Source: 1992 PACKAGING Consumer Survey

Informative, accurate food labels are very "valuable" to consumers

sumers also vote for plain, old-fashioned value. "Value for the money" was listed by 87% as the most important characteristic for foods and by 89% for OTC drugs. In personal-care products, despite their glamorous image, value again ranks as the top demand for 88% of respondents.

Indicative of the value trend are results showing that demand has leveled off for easy-opening and easy-resealing food packages. While these elements make food containers more convenient, they also can raise the price—a price consumers may not be willing to pay.

Action plan: Value for the money ranks nearly as high as tamper-evident packaging. Possible responses: Consider offering concentrated products in smaller packages. Apply on-package coupons or recipe booklets. Tout the "per-ounce" cost savings of products when purchased in large, bulk containers.

When the crucial moment arrives and the consumer is ready to make a choice from the store shelf, offering them product value in an equally valuable package will certainly be a powerful influence for sales success. ■

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Outstanding	530
Above Average	531
Average	532
Below Average	533

PACKAGING's 1992 Consumer Survey uses 43 questions to probe consumer attitudes about packaging. A summary of all questions comparing key data with previous surveys is available for $250. Complete survey results totaling 316 pages is available for $500. For information, contact Consumer Survey Editor, PACKAGING Magazine, 1350 E. Touhy Ave., Des Plaines, IL 60018, or circle **534.**

TOP THREE PACKAGING TRAITS: VALUE, TAMPER-EVIDENCE RANK HIGH

Consumers want packaging to provide many benefits but they place the greatest emphasis on tamper-evidence and value for their dollar.

Question: How important are the following characteristics when you are considering purchasing these products?

Percent saying "extremely important" or "very important"

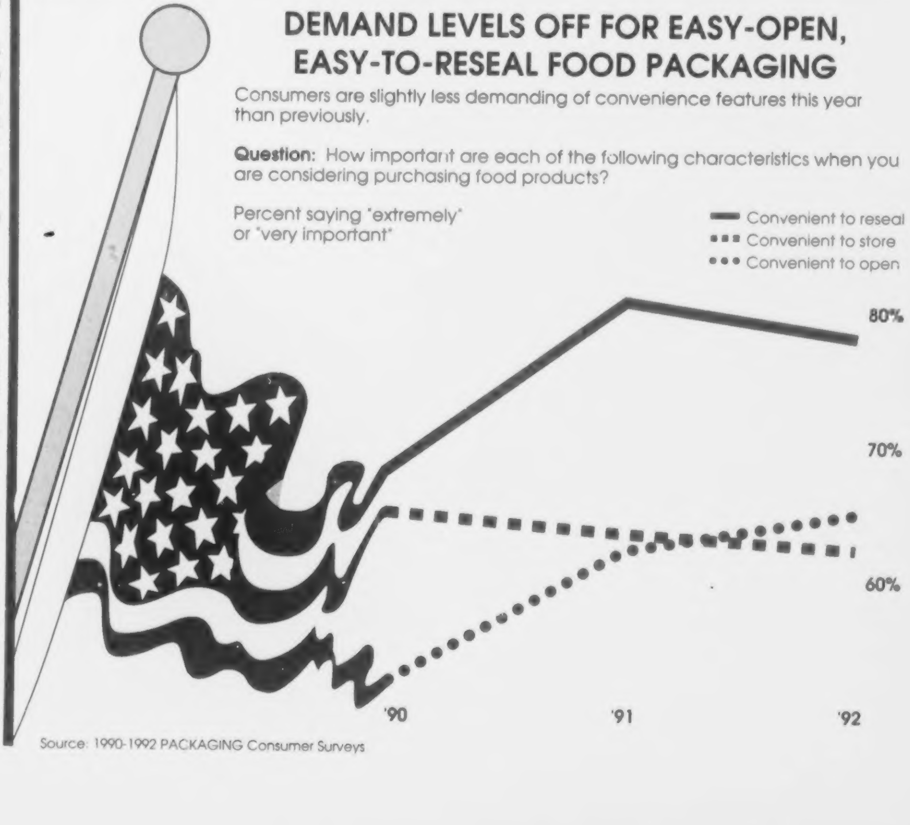
Food	Pharmaceuticals	Personal-care products
1. Preserves flavor/taste 95.4%	1. Packaged in tamper-evident container 91.0%	1. Value for the money 88.2%
★	★	★
2. Value for the money 87.4%	2. Value for the money 88.5%	2. Convenient to reseal 80.8%
★	★	★
3. Packaged in tamper-evident container 85.1%	3. Convenient to reseal 84.9%	3. Convenient to open 76.5%

Source: 1992 PACKAGING Consumer Survey

DEMAND LEVELS OFF FOR EASY-OPEN, EASY-TO-RESEAL FOOD PACKAGING

Consumers are slightly less demanding of convenience features this year than previously.

Question: How important are each of the following characteristics when you are considering purchasing food products?



Source: 1990-1992 PACKAGING Consumer Surveys

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A: Your donations could qualify as a tax benefit up to 200% of cost under IRS 170(e) (3).

Q: Who could possibly need my excess parts, assemblies, complete products and office supplies?

A: Thousands of students and teachers in **local school systems**, as well as community, technical and four-year colleges need metal, electric, electronic parts and supplies for **training**.

Q: Where do non-profits get them? And how?

A: We have six warehouses around the country where school systems, colleges and **social service non-profits** come in and select what they need.

Q: Can my company get the tax benefit this quarter?

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PEOPLE

D.Robison

Douglas Robison, formerly president of Bemis Machinery Group, has been named president and CEO of contract packager Cloud Corp. **Charles Cloud** will continue as chairman of the board . . . **Michael McNamara**, vice president of operations and general manager for Automated Packaging Systems, has been named chairman of the board of the Flexible Packaging Association . . . Amoco Foam Products has appointed **Joe Strickland** as president and **Warren King** as executive vice president . . . Rexene Corp. has promoted **James Ruberto** to executive vice president of Rexene and president of Consolidated Thermoplastics, a division of Rexene. **Jack Knott** has been appointed executive vice president of sales and market development for Rexene . . . Westvaco has named **John Luke Jr.**, president and CEO effective November 1, 1992. **Jack Hammond** has been elected a senior vice president of the company and manager of the Bleached Board Div. . . . Mebane Packaging has elected **George Krall** president and COO . . . **Robert Sirois** has been named president of CCL Label-U.S., a subsidiary of CCL Industries . . . Hercules has appointed **Reid Frazier** vice president and general manager of the Packaging Films Group, Hercules Materials . . . Lawson Mardon Group has named **Andrea Mattiussi** president and CEO . . . Inland Container has elected **William Howes** president and COO . . . **Edward Fox** of Procter and Gamble has been elected president of the Plastics Recycling Foundation.

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A Cahners Publication

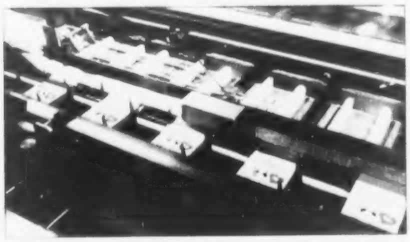
PACKAGING®

FOR BUYERS OF MACHINERY, CONTAINERS, MATERIALS, SUPPLIES, SERVICES / JULY 1992

EXCLUSIVE: THE PACKAGING 100

Find Out

- ★ What The 'Giants' Buy . . . And Why
- ★ Where They See The Best Chances For Growth



Greetings from a cartoning innovator— See Package Engineering® section

Plus

ISO 9000: Quality Booster Or Quagmire?

Keeping Packages On Time And Unscrambled

PACKAGING®

A CAHNERS PUBLICATION/VOLUME 37 NUMBER 8

FEATURES

The sixth annual PACKAGING 100 24

Leading packagers respond to our exclusive opinion survey as expenditures hit $31.4 billion.

New line targets immediate savings 30

American Greetings has cut warehouse and floor space, labor and materials waste.

Timing screws, orienters and unscramblers boost efficiency 35

Systems offer versatility in speed and parts handling.

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Suppliers of timing screws, orienters and unscramblers.

Building quality pays off 45

Whether packagers encourage their suppliers to try for ISO 9000 status or certify them internally, it's the process that really counts.

ISO 9000: Fad or foundation 46

Okay, so it's not perfect. But it's the closest we have to a world standard for product quality.

New ways to ship bulk liquids 49

Traditional drums are familiar and easy to use. But alternatives offer disposal benefits.

Bulk container boosts efficiency 53

Pallet downsizing, double stacking bring overseas freight savings.

Bulk packs cut risk of damage 53

Recyclable units lower shipping costs and ease handling of fibers.

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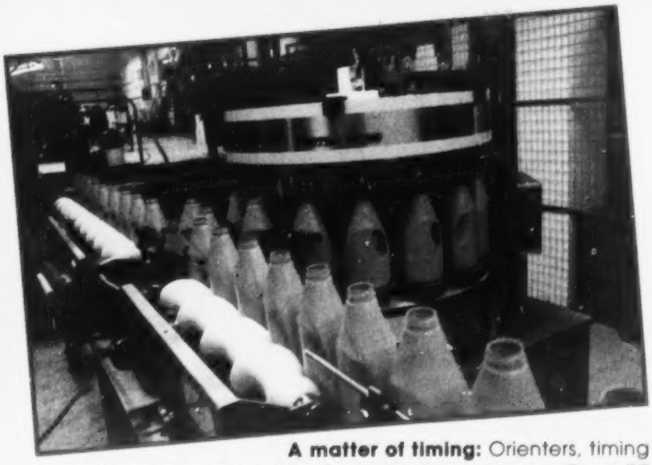
NEXT MONTH

What do retailers want? Mass-merchandising is taking cosmetics sales away from department stores. Discover what package details catch the retailer's eye in Part II of our series.



A matter of timing: Orienters, timing screws and unscramblers keep packages in sync. Page **35**

38 for $2.49
Dinosaur Friends

New cartoning line packages annual production of Valentine Day cards in just 10 weeks. Page **30**

Quality at any cost? Will ISO 9000 become the world standard? Page **45**

Find out what the packaging trendsetters think. Page **24**

THE CONSUMER CONNECTION

Microwave containers: Public's penchant for plastic grows

These stats—part of PACKAGING's exclusive 1992 Consumer Survey—come from the more than 75% response to 1,000 questionnaires we sent to consumers nationwide. In tracking such consumer preferences for eight years, the Consumer Survey has become a highly credible storehouse of vital marketing information. Each month this column will examine a portion of the survey results up close, shedding new light on the ever-changing attitudes and desires of today's consumer as they affect the field of packaging.

Mary O'Grady
Research Manager
Cahners Publishing Co.

Nine out of 10 consumers say they use a microwave oven at home and almost half that many use one at work. With microwave usage at such high levels, it is increasingly important to be aware of what types of microwavable food containers consumers prefer.

By nearly a two-to-one margin, consumers prefer plastic packaging over either paperboard or glass when it comes to microwavable food containers. More specifically, over 44% favor plastic materials for such packaging—up from 37% in 1991.

While preference for paperboard microwave packaging has remained constant since 1991 at 27%, the percent of consumers who say they prefer glass containers has declined from 27% last year to 23% this year.

Tiny blip for aluminum

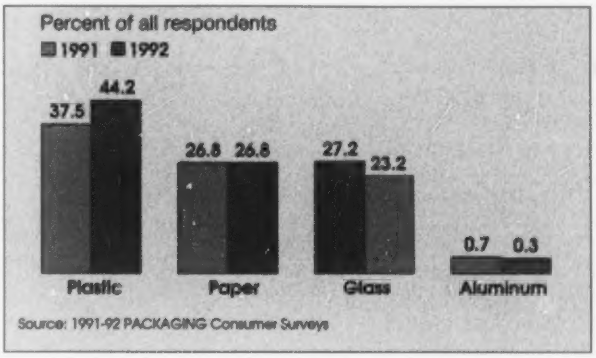
Aluminum packaging for the microwave has never really made much of an impact on consumers' preferences. It was chosen by only 0.8% of respondents back in 1990. This year, only 0.3% say they prefer such containers for use in the microwave. It seems that all the product/package development and marketing efforts to educate consumers about the safety of aluminum in the microwave hasn't yielded hoped-for results.

Today's active consumers favor plastic microwave containers most. More than half of young couples—likely to have little time for food preparation—prefer plastic microwavable containers. About 26% of consumers in this lifestage prefer paperboard, and 18% choose glass.

Which demographic group prefers plastic for microwaving the most? It's young singles. With on-the-go lifestyles and smaller portions, this group may appreciate the reusability of a plastic microwavable container for "leftovers," and may explain the 60% who prefer this package.

PLASTIC LEADS BY A WIDE MARGIN

Question: Which one type of packaging container do you prefer to use in the microwave oven?



Source: 1991-92 PACKAGING Consumer Surveys

SpaceKraft®

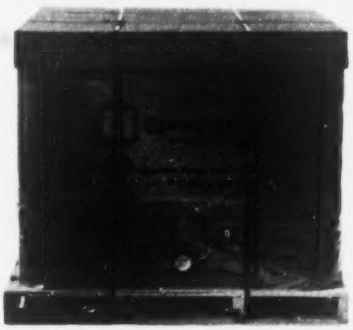
The environmentally friendly bulk shipper for nonhazardous liquids.

Recyclable. Biodegradable. Waste-to-energy efficient.

One container carries as much as 4 to 6 drums in 20% less space.

Takes one man just 3 minutes to set up.

Endures up to 40,000 pounds compression.



Stacks up to 4 high on sturdy pallets.

Easy dispensing from top, bottom or front of box.

No wood or metal parts required.

Manufactured by a patented process, SpaceKraft® is continuously wound from 8 plies of 69-pound kraft linerboard and 33-pound A-flute medium. The result: a *seamless* bulk shipper that needs no wood or metal parts—plus uncommon handling ease, strength and disposability. The inner bag is available in a broad range of FDA food grade multi-ply films or coextruded films for specific barrier requirements. All are provided in easy-to-use corrugated cassettes.

SpaceKraft® containers meet or exceed all National Safe Transit Association (NSTA) tests for liquid packaging and are approved by the National Motor Freight Association for shipping nonhazardous liquids.

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For information circle **6**

THE SIXTH ANNUAL
PACKAGING 100

Leading packagers respond to our exclusive opinion survey as expenditures hit $31.4 billion.

Mark Spaulding
Senior Editor and
Mary O'Grady
Research Manager
Cahners Publishing Co.

While the temperature of the American economy remains lukewarm, this year's PACKAGING 100 survey reveals robust growth.

Our exclusive study of the 100 largest domestic consumers of packaging materials and containers shows these giants spending $2.1 billion more to package products for the marketplace in 1991 than in 1990. This represents a 7.2% increase over 1990 and a 28% rise over 1989.

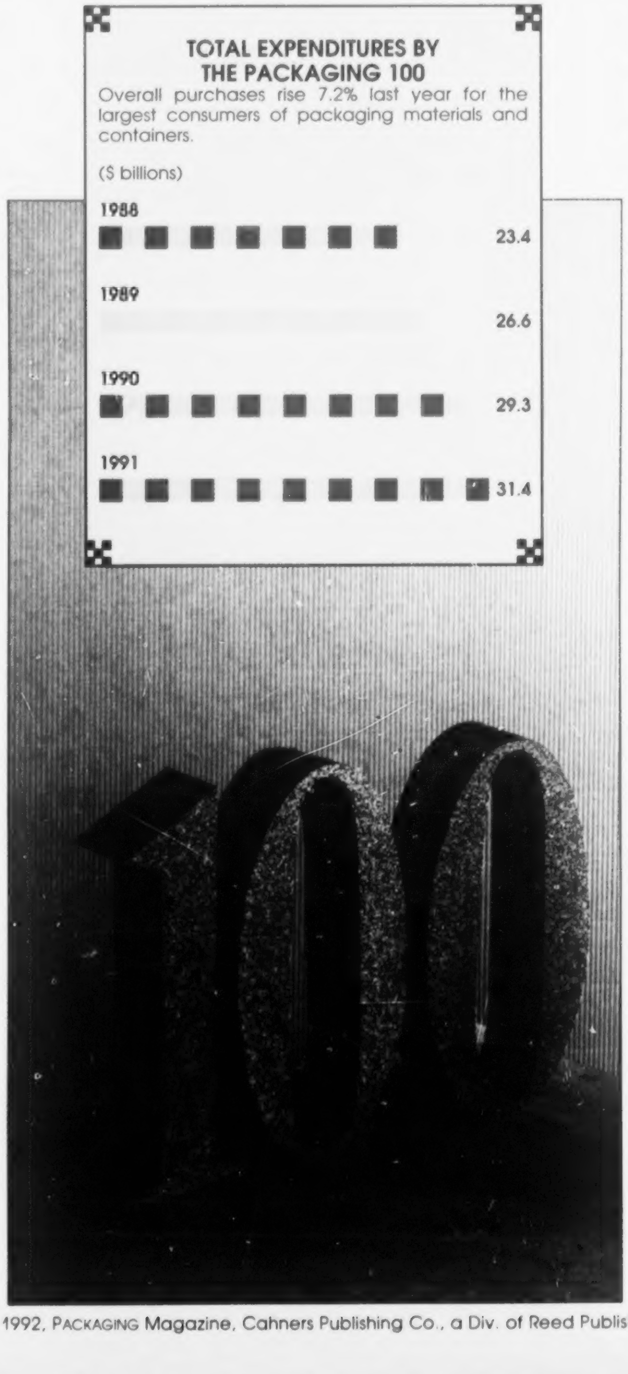
The combined purchasing power of these top 100 companies also continues to dominate the domestic packaging field. Last year, these packagers consumed 41.7% of all packaging materials produced in the U.S.—up from a 40% market share in 1990 and 37.5% in 1989. The top 10 companies alone spent more than $14.6 billion last year—almost 18% of all U.S. packaging-field output.

However impressive these statistics may be, individual members of the PACKAGING 100 saw their expenditures fluctuate wildly: Significant increases by some packagers were largely offset by declines in spending by automotive, petroleum-product and durable-goods makers. (See tables next page).

How we got the stats

PACKAGING analyzed 200 companies to ascertain the amount spent on packaging materials for use during calendar-year 1991 to package all products sold in the U.S. (This includes the value of any self-manufactured containers.)

Supplemental information from Cahners Economics and elsewhere helped build our database. Purchasing figures were estimated by relating packaging costs to the value of U.S. product shipments.


TOTAL EXPENDITURES BY THE PACKAGING 100

Overall purchases rise 7.2% last year for the largest consumers of packaging materials and containers.

In addition to compiling our exclusive 100 list, we wanted to find out more about what the giants buy . . . and why. To do this, Cahners Research was recruited to survey 2,000 packaging managers at these 100 leading companies. Questions spanned across the entire spectrum of issues related to the packaged-goods business in America.

Around the corner

Knowing that future success depends a lot on good planning, we asked managers to forecast growth in their expenditures for both packaging materials and machinery in the coming years. Overall, respondents from the PACKAGING 100 companies foresee materials spending up 8.0% this year over last and another healthy increase of 8.7% next year. Growth rates vary by industry. (See chart next page.)

Our respondents see even greater purchase hikes on the capital-equipment side. They're looking at spending 10.2% more in 1992 on packaging machinery and 10.4% more in 1993. Clearly, after several years of deferred machinery purchases, packagers are planning to invest heavily for the rest of the 1990s.

When it comes to why they buy what they buy, the PACKAGING 100 managers call quality the most important factor when making purchase decisions. Nearly 75% of our respondents choose it over knowledgeable service, good supplier reputation, low price and short leadtimes.

Among specific industries, high quality is considered most important by 80% of packagers of chemicals and allied-products, and almost 70% of food and beverage

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1992 Rank	Company & Headquarters	Packaging Expenditures ($ Millions)	% Change from last year
1	**Philip Morris Cos., Inc.,** New York, NY	2,631.50	1.02%
2	**Anheuser-Busch Cos.,** St. Louis, MO	2,510.00	3.08
3	**PepsiCo, Inc.,** Purchase, NY	1,646.50	4.41
4	**Procter & Gamble Co.,** Cincinnati, OH	1,608.00	3.28
5	**Coca-Cola Co.,** Atlanta, GA	1,320.00	4.93
6	**ConAgra,** Omaha, NE	1,315.00	31.71
7	**Coca-Cola Enterprises,** Atlanta, GA	1,133.50	.49
8	**RJR Nabisco,** New York, NY	1,032.00	4.56
9	**Seagram Co. Ltd.,** Montreal, Quebec	762.00	4.24
10	**Unilever US Inc.,** New York, NY	674.75	7.10
11	**Sara Lee Corp.,** Chicago, IL	610.75	4.40
12	**Nestle USA, Inc.,** Glendale, CA	578.00	2.30
13	**Adolph Coors Co.,** Golden, CO	536.61	1.00
14	**Brown-Forman,** Louisville, KY	450.25	6.95
15	**Eastman Kodak,** Rochester, NY	437.00	3.07
16	**Campbell Soup Co.,** Camden, NJ	405.00	−.74
17	**Borden,** New York, NY	404.05	.51
18	**American Home Products,** New York, NY	402.27	5.86
19	**Stroh Brewing Co.,** Detroit, MI	399.75	1.20
20	**General Mills,** Minneapolis, MN	391.04	10.00
21	**Clorox Co.,** Oakland, CA	359.00	11.49
22	**Cadbury Schweppes,** Stamford, CT	355.00	9.91
23	**Archer-Daniels-Midland,** Decatur, IL	343.00	9.24
24	**Grand Metropolitan,** Minneapolis, MN	326.00	−1.51
25	**Rhone-Poulenc Rorer,** Collegeville, PA	317.48	31.19
26	**G. Heileman Brewing Co.,** La Crosse, WI	305.75	1.92
27	**Whitman Corp.,** Chicago, IL	302.50	8.81
28	**Del Monte USA,** San Francisco, CA	297.50	1.19
29	**Revlon Group,** New York, NY	294.25	5.09
30	**H.J. Heinz Co.,** Pittsburgh, PA	275.00	5.36
31	**John Labatt Ltd.,** London, Ontario	266.85	−5.04
32	**Ocean Spray Cranberries,** Plymouth, MA	258.38	4.18
33	**Kellogg Co.,** Battle Creek, MI	252.00	13.51
34	**Quaker Oats Co.,** Chicago, IL	251.75	5.33
35	**S.C. Johnson & Son,** Racine, WI	249.00	10.18
36	**Johnson & Johnson,** New Brunswick, NJ	247.00	16.51
37	**Sherwin-Williams,** Cleveland, OH	237.00	25.40
38	**Dean Foods Co.,** Franklin Park, IL	204.75	5.00
39	**Warner-Lambert,** Morris Plains, NJ	193.25	8.26
40	**Bristol-Myers Squibb,** Evansville, IN	191.00	9.14
41	**American Cyanamid,** Wayne, NJ	190.93	10.68
42	**Tyson Foods,** Springdale, AR	186.08	7.00
43	**Du Pont de Nemours,** Wilmington, DE	186.00	−4.57
44	**Geo. A. Hormel & Co.,** Austin, MN	185.12	5.68
45	**Hershey Foods Corp.,** Hershey, PA	184.68	2.31
46	**Allied-Signal Inc.,** Morristown, NJ	178.75	−4.92
47	**Dow Chemical USA,** Midland, MI	172.00	−4.44
48	**CPC International,** Englewood Cliffs, NJ	171.00	.88
49	**Colgate-Palmolive Co.,** New York, NY	170.00	−15.00
50	**Dr. Pepper/Seven-Up Co.,** Dallas, TX	169.13	5.05
51	**Ralston-Purina Co.,** St. Louis, MO	169.00	3.68%
52	**Dole Food Co.,** Los Angeles, CA	161.00	.63
53	**Avon Products Inc.,** New York, NY	157.50	5.00
54	**Dial Corp.,** Phoenix, AZ	148.38	4.49
55	**General Motors,** Detroit, MI	142.00	−4.70
56	**Mars, Inc.,** Hackettstown, NJ	141.00	4.44
57	**Keebler Co.,** Elmhurst, IL	138.02	3.00
58	**Iowa Beef Processors,** Dakota City, NE	137.17	1.98
59	**3M Co.,** St. Paul, MN	134.43	1.07
60	**Pabst Brewing Co.,** Milwaukee, WI	132.50	2.12
61	**Pet, Inc.,** St. Louis, MO	127.00	−6.62
62	**American Brands,** Old Greenwich, CT	118.00	9.26
63	**Exxon Corp.,** Irving, TX	115.85	−4.26
64	**Bayer USA Inc.,** Pittsburgh, PA	113.00	3.20
65	**IBM,** Armonk, NY	108.00	−10.37
66	**McCormick & Co.,** Hunt Valley, MD	106.13	6.13
67	**Schering-Plough Corp.,** Madison, NJ	105.50	13.44
68	**Ford Motor Co.,** Dearborn, MI	101.16	−15.70
69	**Universal Tobacco,** Richmond, VA	98.25	15.25
70	**Hoechst Celanese,** Bridgewater, NJ	96.00	16.72
71	**Cosmair,** New York, NY	94.62	12.64
72	**Sunkist Growers, Inc.,** Sherman Oaks, CA	93.90	14.51
73	**Pfizer,** New York, NY	93.50	10.00
74	**Gold Kist, Inc.,** Atlanta, GA	91.06	5.27
75	**General Electric,** Fairfield, CT	90.00	0.00
76	**Chiquita Brands Int'l,** Cincinnati, OH	89.13	4.24
77	**Reckitt & Colman plc,** London	89.00	17.88
78	**Morton International,** Chicago, IL	89.00	17.11
79	**Chevron Corp.,** San Francisco, CA	88.25	−3.02
80	**Motorola, Inc.,** Schaumburg, IL	88.00	0.00
81	**PPG Industries Inc.,** Pittsburgh, PA	87.02	−5.00
82	**Bausch & Lomb,** Rochester, NY	85.25	11.44
83	**Mobil Corp.,** Fairfax, VA	82.50	−8.84
84	**Tenneco Inc.,** Houston, TX	80.75	−2.71
85	**Central Soya,** Fort Wayne, IN	80.00	3.90
86	**Merck & Co.,** Rahway, NJ	78.13	10.82
87	**Baxter International,** Deerfield, IL	75.11	10.46
88	**Gerber Products,** Fremont, MI	72.30	4.03
89	**Land O'Lakes, Inc.,** Arden Hills, MN	72.10	3.00
90	**Texaco, Inc.,** White Plains, NY	68.50	−8.67
91	**Black & Decker,** Towson, MD	68.13	−6.68
92	**Monsanto,** St. Louis, MO	68.00	−1.45
93	**SmithKline Beecham,** Philadelphia, PA	64.50	7.50
94	**Alberto-Culver Co.,** Melrose Park, IL	63.34	8.27
95	**Flowers Industries,** Thomasville, GA	61.49	1.01
96	**Olin Corp.,** Stamford, CT	61.05	11.00
97	**Thorn Apple Valley,** Southfield, MI	60.53	22.91
98	**Levi Strauss & Co.,** San Francisco, CA	59.65	16.96
99	**Amoco Corp.,** Chicago, IL	58.00	0.00
100	**Chrysler Corp.,** Highland Park, MI	56.13	−8.74

Top companies foresee materials spending up 8.0% this year and up 8.7% in 1993.

packagers. These are packaging-intensive businesses.

Few innovators?

Back in the mid-1980s, it seemed as if a month didn't go by without some astounding new technological development being commercialized by a leading packager. Where has all the innovation gone?

Only 7% of our responding managers say their company's use of packaging technology is "very innovative." Conversely, 4% say they are "not at all innovative."

To find out why, we listed eight possible reasons for minimal use of packaging technology. Nearly half of the respondents cite tight cost containment at their companies as the chief factor for lackluster innovation. Almost equally to blame is short-sighted upper management.

At the forefront

If any one issue has challenged the packaging field more than the rest since the mid-1980s, it is the environment. And managers at the Top 100 packaged-goods companies are on the front lines.

When asked to choose the best way to counteract criticism of packaging's negative environmental impact, 44% of respondents choose source reduction. (See chart at right). On the other hand, when it comes to the most *cost-effective* means of handling trash, about 51% of respondents say to construct more recycling centers.

The 1992 PACKAGING 100 is an extremely influential group of companies. Their impact on the overall U.S. economy is growing, and what they think is bound to have a significant effect on America's business future. ■

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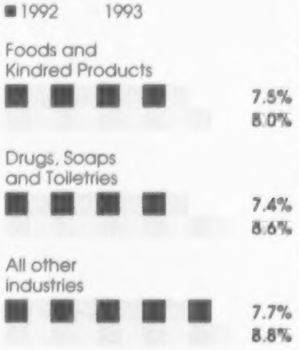
How would you rate this article? To reply, circle the appropriate number on the reader service card:

Outstanding	514
Above Average	515
Average	516
Below Average	517

PACKAGERS FORESEE STRONG GROWTH IN MATERIALS EXPENDITURES...

Overall, packagers are planning for an 8% increase in materials and containers spending this year and an 8.7% increase in 1993.

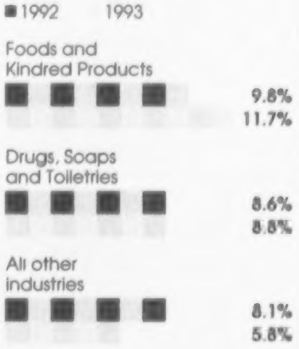
Question: To the nearest percent, estimate the anticipated growth in your company's packaging materials expenditures for each year.



...AND EVEN GREATER HIKES IN MACHINERY PURCHASES

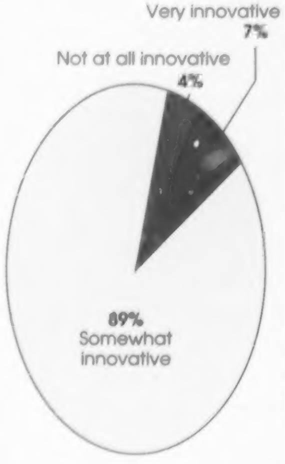
Total expenditures for packaging machinery are expected to climb 10.2% this year and another 10.4% next year.

Question: To the nearest percent, estimate the anticipated growth in your company's packaging machinery capital-equipment expenditures for each year.



FEW TOP 100 PACKAGERS SAY THEY'RE "VERY INNOVATIVE"...

Question: Rate your company's use of packaging technology.



...AND HERE'S WHY

Question: Which three factors are most responsible for your company's minimal use of packaging technology/innovation?

(Top five factors chosen from a list of eight)

1. Tight cost containment policies
2. Short-sighted upper management
3. Slow technological developments
4. Personnel reductions
5. Cutbacks in R&D

SOURCE REDUCTION LEADS AS RESPONSE TO ENVIRONMENTAL CONCERNS...

Among all respondents, designing simpler packaging should be the industry's top environmental effort.

Question: In your opinion, what's the best way to counteract criticism for packaging's negative impact on the environment?

Percent choosing this response

1. Design simpler, less-extravagant packaging	44.0%
2. Design packaging for recycling	41.9%
3. Design biodegradable packaging	8.1%
4. Design easily-incinerated packaging	3.4%
5. Move to standardized packaging	2.6%

...BUT RECYCLING IS SEEN AS MOST COST-EFFECTIVE SOLUTION

More than half of the Top 100 packagers think constructing recycling centers is most cost-effective, and nearly one-quarter chose incineration.

Question: What is the most cost-effective means of handling trash?

Percent choosing this response

1. Construct more recycling centers	51.5%
2. Build more incinerators	22.5%
3. Ban some forms of packaging	16.6%
4. Force retailers to take back used packages	6.4%
5. Dig more landfills	3.0%

Source: 1992 PACKAGING 100 Survey

Leading Packagers Voice Their Opinions

Packaging education is more important than management skills. Career-threatening corporate mergers are still a reality for some.

Job experience is more important than formal packaging education for a packaging professional. Environmental claims supporting one material over another are detrimental to the packaging field overall. And most new packaging technology originates right here at home.

These are the strong opinions of respondents to a major portion of our exclusive 1992 PACKAGING 100 Survey. We asked corporate managers at the top 100 purchasers of packaging materials and containers to indicate how strongly they agreed or disagreed with several statements. Some of the results were expected, but some were surprising.

Regardless what type of product respondents package, about 80% feel that job experience outweighs formal packaging education for a packaging professional to be successful in his/her job. The strongest support for this view comes from packagers of textile-mill, rubber and fabricated-metal products.

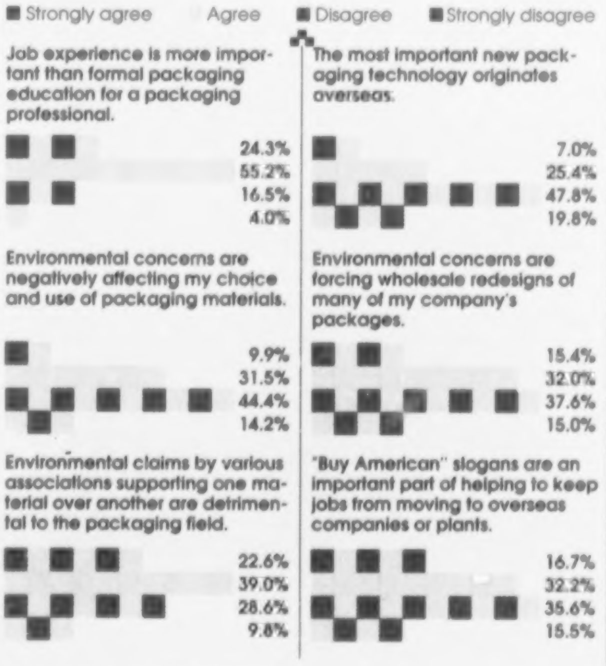
On the other hand, formal packaging education is considered more important than administrative or managerial skills. More than 61% overall agree with this thinking. Specifically, two-thirds of chemical packagers and 90% of electrical-equipment makers responding hold this opinion.

The late-1980s wave of corporate mergers and acquisitions has died down. Along with it, so has the fear that such mergers are threatening the careers of managers at the PACKAGING 100.

TOP 100 MANAGERS EVALUATE WIDE RANGE OF PACKAGING ISSUES

Almost 80% of respondents say that job experience is more important than formal packaging education, and two-thirds of respondents believe that the most important new packaging technology originates in the U.S. About half believe in the importance of "Buy American" slogans for keeping U.S. jobs at home.

Question: Indicate to what extent you agree or disagree with the following statements.



Source: 1992 PACKAGING 100 Survey

Nearly 83% of our respondents no longer feel such business deals are endangering their jobs.

Job-threatening corporate mergers are still a reality, however, for almost 17% of respondents in the jewelery, toys and sporting-goods industries.

Enviro-opinions

By a 60/40 ratio, packaging managers at these companies overall feel that environmental concerns are *not* having an effect on their choice and use of packaging materials. That ratio is reversed, however, for managers in the drug and chemical industries. For 57% of them, eco-concerns *are* negatively affecting their choice of certain packaging materials.

By a similar 60-40 ratio, our respondents agree that environmental claims supporting one packaging material over another really *are* detrimental to the packaging field overall.

Opinion is mixed when it comes to "Buying American." Only half of PACKAGING 100 managers say "Buy American" slogans are important to keeping jobs from moving to overseas companies or plants. Those packagers agreeing most strongly with the statement come from the textile-mill, apparel and construction-product industries. ■

—Mark Spaulding

Top 100 Reveal Global Plans

Greatest opportunities are close to home, they say. More than half support North American Free Trade Agreement.

North America will continue to hold the best potential for increased sales opportunities in the 1990s. The creation of a single European marketplace will help more than hinder packaged-goods sales. And more than one-third of America's leading packagers already do significant business in Canada and Mexico.

These are just a few of the findings from our exclusive 1992 PACKAGING 100 Survey. By means of a questionnaire mailed in April 1992, we asked managers at the top 100 companies a number of questions related to international business. Their responses reveal some important trends for global marketing in the coming years.

Nearby opportunities

Markets close to home continue to hold the best opportunities for PACKAGING 100 companies. North America was the top choice of 60% of respondents; the European Community came in a close second with 56%.

Following the downfall of communism and the rapid development of market economies in many Eastern European countries, it's perhaps not surprising that Eastern Europe was chosen by 40% of respondents as a key future market for their company's packaged products. Almost as important for some packagers is the Pacific Rim: 37% chose this market.

EC market helpful

Almost 50% of the PACKAGING 100 managers responding expect a single EC market to help their packaged-goods business. Most positive about this are packagers of drugs, soaps and toiletries, electronic equipment and medical devices.

Still, 40% of respondents see the creation of the single EC market as having no effect on their business at all. Those expecting such a market to "somewhat hinder" their sales include makers of apparel and fabricated-metal products.

The idea of future sales in the EC is one thing, but strong manufacturing and product packaging throughout a potential "United States of North America" is already an established fact closer to home.

About 85% of our survey respondents say they already do a fair share of their business in Canada and about 75% of the PACKAGING 100 packagers are equally involved in Mexico.

Many favor free trade

Leading one day to a potential continent-wide marketplace is the North American Free Trade Agreement, currently under negotiation. With such deep involvement in both Canadian and Mexican business already in place by these 100 packagers, it's not surprising that 53% of our respondents favor the treaty's establishment. Only 9.7% do not.

Strongest support for the NAFTA comes from food, beverage, textile and electronics makers. Those managers expressing the most negative view of such a treaty come from the petroleum and construction-product industries.

Still, a significant minority—37%—are undecided about the NAFTA's ratification. PACKAGING's 100 managers in the toy, sporting goods and jewelry businesses were the most undecided over this issue. ■

—*Mark Spaulding*

NORTH AMERICA, EUROPEAN COMMMUNITY ARE TOP MARKETS

Markets close to home continue to hold the best opportunities for Packaging 100 companies.

Question: Which three of the following regions represent the best potential for increased sales opportunities for your company's packaged goods in the 1990s?

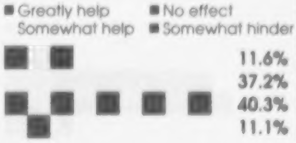
Percent choosing this region

1. **North America 59.9%**
2. **European Community 55.9%**
3. **Eastern Europe 39.6%**
4. **Pacific Rim 36.6%**
5. **Latin America 33.5%**
6. **Africa/Middle East 9.3%**

MOST PACKAGERS SEE SINGLE EUROPEAN MARKET AS BENEFICIAL

Almost 50% of respondents expect an EC market to help their business.

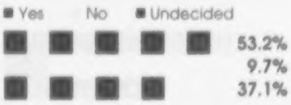
Question: What affect will the creation of the Single European Community marketplace have on your packaged-goods business?



PACKAGERS REMAIN UNDECIDED OVER NORTH AMERICAN FREE TRADE

Two-thirds of medical-device manufacturers support an agreement.

Question: Do you support the establishment of the North American Free Trade Agreement merging the U.S., Canada and Mexico into one marketplace?



Source: 1992 PACKAGING 100 Survey

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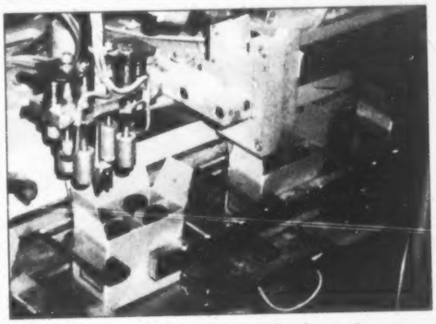
PACKAGING®

FOR BUYERS OF MACHINERY, CONTAINERS, MATERIALS, SUPPLIES, SERVICES/AUGUST 1992

FOCUSING ON COSMETICS

What Do Retailers Want From You?

JIT System Smoothes Flow On Nail Polish Line



Beauty in print-as-needed cartons—See Line Operations

How Long A Shelf Life Do Food Products Need?

In Marketplace: Buymanship Info On Case-Handling Machinery

Plaza
Plum
250NCC 06
Maybelline®
REVITALIZING COLOR
For Nails
Exclusive
Keratin-A
Formula
to condition
and protect
Makes nails
resilient–
less likely
to break
Fast drying
Formaldehyde-
free
MAYBELLINE
½ FL OZ

PACKAGING

BREAKING NEWS

Accidental poisoning of children remains a big problem

Child-resistant closures have had a positive impact, but accidental poisonings of children continue to be a significant social problem in the United States.

A study reported in the June issue of *Pediatrics*, the journal of the American Academy of Pediatrics, compiled information from nearly 4 million cases of poisoning between 1985 and 1989 involving children younger than six. Of the exposures, says the magazine, 60.5% involved non-pharmaceutical products and 39.4% involved pharmaceuticals.

A total of 111 deaths occurred during that time.

Snacks marketer dares to be dull in introducing new packaging

Marketers at Westbrae Natural Foods, Gardena, Calif., are betting that a new matte-finish multilayer film construction will help attract consumers to their new Lite Puff snack line, which contains 50% less fat than the industry average.

Lite Cheddar Puffs, Lite Ranch Rounds and Lite Pizza Pops are packaged in a construction utilizing Torayfilm matte-finish oriented polypropylene, made by Toray in Japan. The converter is James River.

From the outside in, the film construction consists of six-color, reverse-printed OPP/white polyethylene/metallized OPP/white Surlyn.

"We chose this matte film to introduce our new Lite Puff line, as well as to give a new look to our Original Cheddar Puffs," says Leslie Hyde, Westbrae spokeswoman. "We considered paper but didn't feel it was as durable, and we were looking for extended shelf life as well as impressive appearance."

NFPA endorses rule change allowing irradiation of poultry

The National Food Processors Association says a proposed new rule that would allow the irradiation of poultry would benefit consumers.

The U.S. Dept. of Agriculture's Food Safety and Inspection Service last May proposed amending existing poultry inspection regulations to permit use of irradiation to treat fresh or frozen uncooked poultry and poultry products.

The poultry would be exposed to low doses of gamma-ray radiation in order to control and reduce food-borne pathogens such as salmonella which can be present in raw poultry.

In comments on the proposed rule filed with the FSIS, officials of the NFPA said, "Irradiation has been determined by the FDA to be a safe process for reducing or eliminating microbiological contamination of food products." The NFPA encouraged FSIS to allow the industry to use irradiation as an additional tool to help ensure the safest possible food supply.

Researcher sees demand for film hitting 11 billion pounds by '96

Bill Weizer, an analyst with The Freedonia Group Inc., Cleveland, Ohio, says domestic demand for plastic film will increase 3.4% per year from a depressed 1991 base to 11 billion pounds in 1996.

Among the best opportunities, says Weizer, are LLDPE, HDPE and polypropylene in secondary-packaging and primary food-packaging markets.

Secondary-packaging demand is seen expanding by more than 4% annually to 3.2 billion pounds in 1996, in part as a result of growth in stretch wrap. Demand for film used in food packaging is expected to increase 3.8% per year to 3.1 billion pounds in 1996 as a result of technological improvements in barrier properties and processing techniques.

U.S. PLASTIC FILM DEMAND BY RESIN
(million pounds)

	1980	1991	1996	% Annual Growth 91/96
Plastic Film Demand (total)	5,760	9,320	11,000	3.4
Low density polyethylene	4,025	6,280	7,195	2.8
High density polyethylene	265	940	1,310	6.9
Polypropylene	300	685	900	5.6
Polyester	500	625	713	2.7
Polyvinyl chloride	280	362	420	3.0
Other resins	390	428	462	1.5

Source: The Freedonia Group Inc.

Weizer notes that environmental problems will probably not hamper growth in film use because of the source-reduction capabilities of these materials.

Survey shows Americans are committed to recycling

According to a recent survey of 1,000 Americans by the Gallup Organization, Princeton, N.J., recycling has become a way of life. Fully 97% of the consumers polled said they believed recycling was important in helping to solve the country's solid-waste problem.

When asked what material first came to mind when

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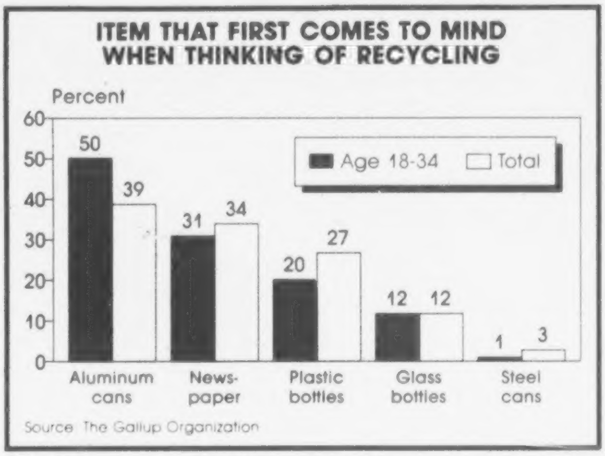
PACKAGING

BREAKING NEWS


ITEM THAT FIRST COMES TO MIND WHEN THINKING OF RECYCLING

Source: The Gallup Organization

thinking about recycling, respondents mentioned aluminum, newspaper, plastic bottles, glass bottles and steel cans in that order. The survey was conducted by telephone on behalf of Alcoa.

Seminar on European waste laws set for day before Pack Expo

In Chicago on Nov. 7, the day before the opening of Pack Expo, Pierre J. Louis, general secretary of the World Packaging Organisation and editor of the *European Packaging Newsletter and World Report* will sponsor an afternoon presentation on worldwide environmental initiatives.

Louis says that on Jan. 1, 1993, the birth of a "new Europe" will, with its 400 million customers, look attractive to American industry. "But the environment will be an obstacle," he notes. "There will be stringent rules and legislative barriers, not only for products but also for their packaging." His seminar will offer advice on satisfying often conflicting environmental requirements.

The European Community Directive on Packaging Waste is expected to be adopted by the European Parliament at the end of 1993. Louis will discuss the impact of that on legislation already in force in Germany, France, Denmark, Holland and Italy. Special emphasis will be placed on practical commercial consequences for U.S. exporters.

For further information, contact the *European Packaging Newsletter*, 669 Washington St., Alexandria, VA 22314-4109.

HDPE manufacturing business moves from Hoechst to Fina

Fina Inc. and Hoechst Celanese Corp. have signed a letter of agreement whereby Fina's wholly owned subsidiary Fina Oil and Chemical Co. will acquire Hoechst's HDPE business at Bayport, Texas. The Hoechst facility has an annual capacity of 350 million pounds.

Says Ron W. Haddock, president and CEO of Fina, "HDPE will be a new product for Fina, and it's a natural fit with our business lines in styrene, polystyrene and polypropylene."

PE bakery bag business moves from Mobil to Huntsman

Huntsman Holdings Corp.'s subsidiary Huntsman Design Products Corp. has agreed to purchase the polyethylene bakery-bag manufacturing assets of Mobil Chemcial Co.

Mobil, the third largest supplier of PE bread bags in the U.S., manufactures the bags at a plant in Macedon, N.Y. Huntsman will relocate the operation within a year to a facility near Fairport, N.Y.

Joint venture to produce first plastic soda bottles in Belarus

Pepsi-Cola International and Eastman Chemical Co. have teamed up with two companies in the Republic of Belarus to produce plastic for beverage bottles in the Commonwealth of Independent States.

Valued at an estimated $100 million over five years, the joint venture is the first to pool packaging technology, marketing experience and export capabilities from two U.S. companies with two companies from the C.I.S. The two Belarus companies are leaders in chemicals and synthetic textiles.

The joint venture, called Belpak, will make PET resin at an existing plant in Mogilev. Half the resin will be used to manufacture bottles for Pepsi in the republics of Russia and Belarus; the rest will be sold for hard currency in Europe.

University seeks licensee for time/temperature indicator

Temple University, Philadelphia, is currently seeking a licensee for a its liquid-crystal time/temperature indicator, which is intended for use with packaged foods and pharmaceuticals.

The Temple indicator is sensitive to both the magnitude and duration of excessive temperature exposure.

Two chemicals chosen specifically for each product are contained in a small capsule. When ambient conditions force them to mix, they react in such a way that the temperature variation and its duration can be determined. The indicator is therefore said to be able to track the detailed thermal history of an individual package and provide a signal for rejection by means of a simple color observation.

For more information, contact Rohit Mehta, assistant director, Office of Technology Transfer.

PACKAGING®

A CAHNERS PUBLICATION/VOLUME 37 NUMBER 9

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Christie
Biscuits
RITZ
CRACKERS
NEW
NOUVEAU
ZIP·IT

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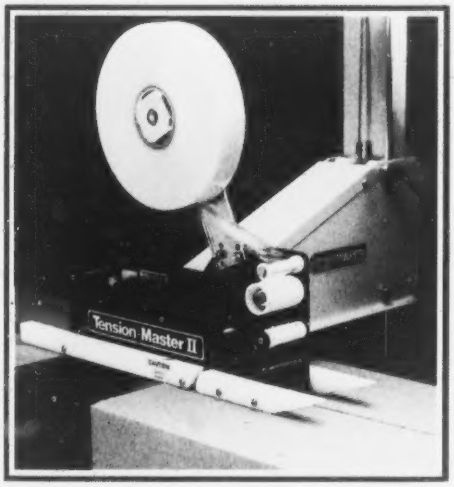

Cosmetics alert: Retailers want bar codes—and more. Page **24**

Europeans are not Americans

If you saw Breaking News in PACKAGING last month, you know I went to England in June to cover Pakex. Call me impressionable, but what I experienced has me rethinking the whole global-marketing idea.

Citizens of the U.S. find citizens of the U.K. to be the most approachable of all Europeans, if for no other reason than language. The English do speak English . . . in a manner of speaking. Yet they're not Americans with strange accents. Here's proof:

- ■ English waiters do not appear when your plate is nearly empty to ask if there's anything else they can do for you. Instead, they walk right on by without making eye contact so as to avoid seeming to hurry you.
- ■ English sign painters don't mind using a lot of words if it raises comprehension and sounds polite. For example, a plaque in my hotel bathroom said, "Please be sure that the shower curtain remains inside the bath whilst you are taking a shower."
- ■ The English don't seem to swarm all over their public figures when they show up in public. Perhaps that's why the queen, whom I saw at a polo match, seems to travel without bodyguards. I got so close to the apparently unprotected monarch at one point that . . . well, if I'd wanted to hand her a stick of gum I could have.
- ■ The English eat *clotted cream*.

The point, I guess, is that marketing packaged products globally seems likely to be challenging. People and their lifestyles are different in different parts of the world. That can be a problem.

Answer me this: Would you buy clotted cream just because it came in a nifty package?

I've tasted it. I don't think so.

◆

In May I asked, "When is a package not a package?" and wondered whether all packaged products had to be separable from their packages for use. Last month I got some intriguing answers. Here's another, from Chuck Jolley of Cryovac.

" 'When is a package not a package?' The better question is, 'When does the package become the product?' And if it does, have we lost sight of what packaging is supposed to do?

Would a nice package prompt you to buy clotted cream?

"We think packaging should bring products to market. It should help retain the quality of the product during the distribution process. In a retail context, the package label should help sell the product by promoting its attributes. At the end of a package's life cycle, it should contribute as little as possible to the solid-waste stream.

"Separability, therefore, is a requirement. If [a package] can't be separated from the product, it *is* the product."

Do you buy that? Let me know.

Greg Erickson

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THE CONSUMER CONNECTION

Environmental Concern: Consumers Say They'll Buy Recyclables, Concentrates

Mary O'Grady
Research Manager
Cahners Publishing Co.

The true level of eco-concern by American consumers is, of course, open to debate. But PACKAGING's exclusive Consumer Survey shows significant, continuing willingness on the part of consumers to take action in reducing packaging waste.

Foremost, buying packages that are easy to recycle and then recycling them remains the most popular. About 75% of respondents in the past three surveys say they're willing to do this.

Degradable doubts

Second in preference is buying packages that are degradable. This action was chosen by 65% of consumers this year—down from nearly 72% last year. Perhaps environmental education by packaged-goods makers and the general media have shown consumers that degradability to not the complete answer to packaging's eco-woes.

RECYCLING LEADS AS TOP SOLID-WASTE SOLUTION

Interest in concentrated products grows significantly for consumers who are willing to take action to help reduce packaging waste.

Question: To help reduce packaging waste, which of the following actions are you willing to take?

Percent of respondents

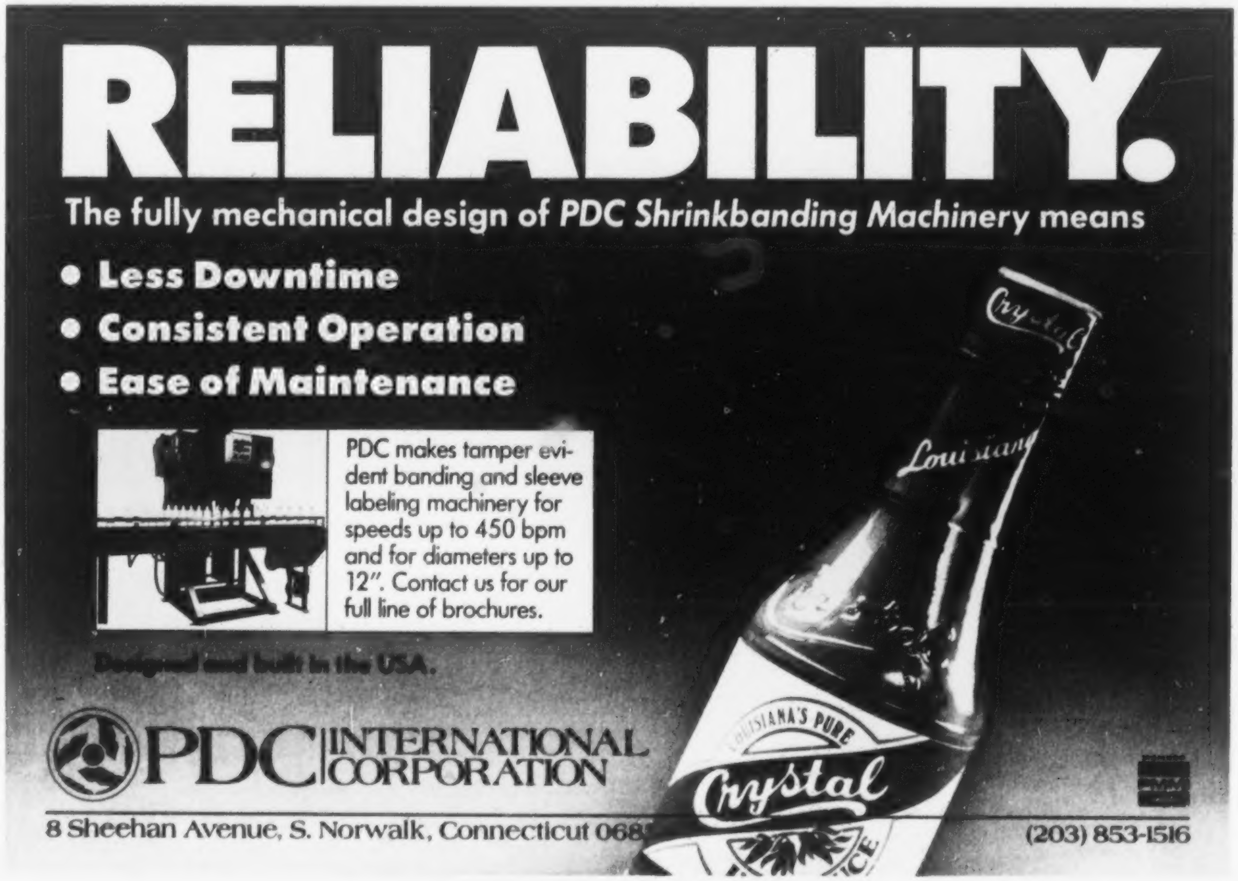
	1990	1991	1992
Buy packages that are easy to recycle, then recycle them	74.9%	75.5%	74.9%
Buy packages that are degradable	70.9%	71.8%	65.0%
Buy products in concentrated form	--	42.4%	52.7%
Reject products that appear to be overpackaged	38.2%	49.4%	47.7%
Buy products in large, bulk packages	30.4%	40.3%	37.5%
Buy unpackaged products from bulk bins	--	33.0%	31.7%

Source: 1990-1992 PACKAGING Consumer Surveys

Buying products in concentrated form is up considerably this year as an action consumers are willing to take—almost 53% compared to 43% in 1991. The sheer proliferation of concentrated household-care products now on the market may account for its growing popularity.

By nearly the same amount—48%—consumers say they would reject products that appear to be overpackaged. About one-third are willing to buy products in large, bulk containers. One-third would buy unpackaged products from bulk bins.

In tracking consumer packaging preferences for eight years, PACKAGING's Consumer Survey has become a highly credible storehouse of vital marketing information. Each month, this column examines a portion of the survey results up close. It's part of our commitment to help you do your job better.



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PART II OF AN EXCLUSIVE SERIES

WHAT DO RETAILERS REALLY WANT?

Mass-merchandising is taking sales away from department stores. Here's how to package cosmetics for this growing marketplace.

Editor's note: Every product manager knows how important packaging is to sales success. But before a product can influence consumers it must interest retailers, and for them packaging is equally important. Part I of this exclusive series, which appeared in February, reported on what retailers want in OTC-pharmaceutical packaging. This month we focus on trends in the cosmetics market and how packagers can respond to the needs of these retailers. In a future issue, we'll publish Part III, a report on what retailers want in packaging for foods.

Mark Spaulding
Senior Editor

As the self-indulgent 1980s rapidly fade into memory and the practical, price-conscious attitudes of the 1990s settle in, value and efficiency are very much on the mind of today's female consumers.

Retailers of both luxuries and necessities have been hit hard by the recession. In response, they have sometimes had to dramatically alter how they sell. And as with many other types of packaged goods, to say that the way cosmetics are sold has changed is clearly an understatement.

The switch is on

Perhaps the biggest change affecting the beauty business is *where* women buy cosmetics and personal-care products. The switch is on to mass-merchandisers—and in a big way.

In 1985, says market researcher Business Trend Analysts, about 18% of all cosmetics products were sold through department stores. That figure will fall to about 11.7% this year. (See chart.)

The drop in market share by department stores has been due almost exclusively to an increase in sales by mass-merchandisers and other outlets such as mail-order companies. Since 1985, retailers such as Wal-Mart, Kmart and others have grabbed an additional 8% of the cosmetics sales pie.

The results of a recent reader survey by *Self* magazine provide some insights into the "whys" of these changes. Almost 25% of respondents said they have switched from department stores to drug/discount stores when buying cosmetics. Mass-merchandise discounters were said to offer lower prices, better value and a wider selection while department stores were cited by nearly 80% as having inflated prices.

For the masses

The dramatic shift toward mass-market cosmetics has meant equally significant changes in packaging. Industry leaders such as Maybelline, Revlon, Cosmair's L'Oreal and Procter & Gamble's Cover Girl brands pay strict attention to the needs and wants of the growing mass-merchandisers. Selling to these retailers requires as much attention to detail as selling to department stores.

"Our stores carry only what we decide to buy," says one health and beauty aids buyer. So how should a product be packaged to best appeal to these "sales gatekeepers"?

A quick perusal of any Wal-Mart, Kmart or PharmMor cosmetics aisle reveals row after row of peggable packaging. Be it foundation, eye shadow, lipstick or blusher, most often it's inside a carded blister pack hanging from a peg. Blisters help stores keep racks well-stocked and with a clean, orderly appearance.

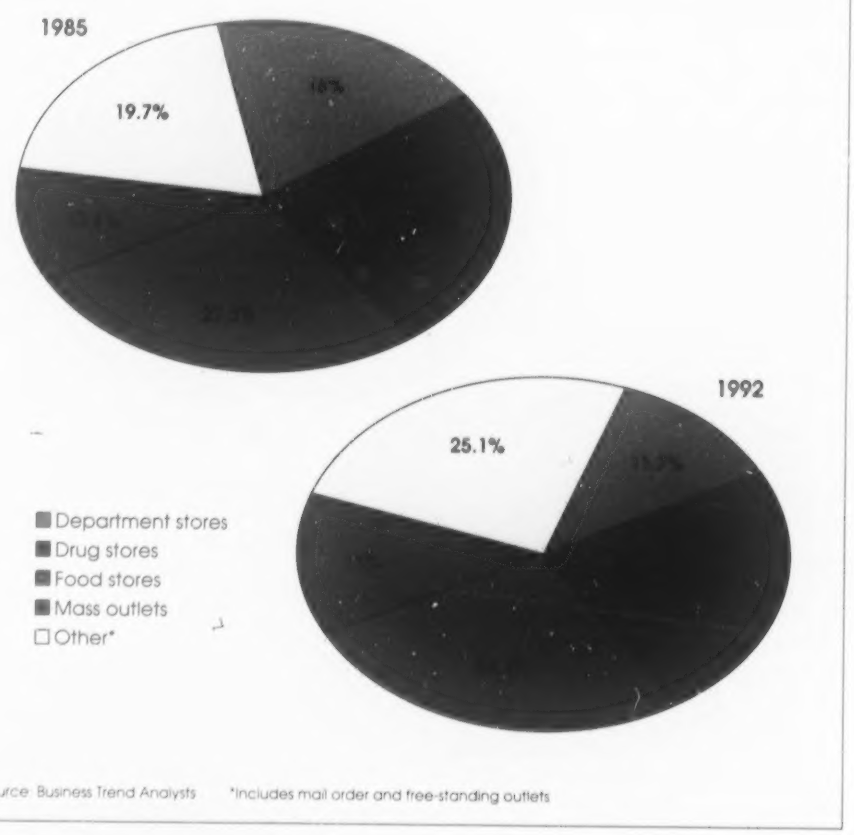
For most cosmetics brands, specific end-aisle or other point-of-purchase displays are inseparable from the product itself. "Displays are an integral technique for selling to mass merchants," says a trade-relations manager for

TABU
LIPSTICKS
Walgreens
SPECIAL!
VALUE
$1.99

Mass-market retailers demand bar codes.

COSMETICS SALES GROWING FASTEST FOR MASS-MERCHANDISERS

Department-store market share of cosmetic purchases has declined by one third since 1985 while mass-merchandisers and other outlets now account for more than 38% of all cosmetic sales.



Source: Business Trend Analysts *Includes mail order and free-standing outlets

a discount drugstore. Because these stores don't usually have staff to offer individual customer attention, flashy or branded displays are indispensable in helping sell product.

Both packagers and store designers are working on the problem. Since their introduction, Clarion Cosmetics have featured The Clarion Computer—an interactive membrane keyboard and LCD screen which assists women with their color and product choices. On the retailer side, the Walgreen Co. now includes a freestanding cosmetics "fragrance bar" as part of its new store design. Such innovations are another example of how product packaging is growing in importance.

'Stop, thief!'

Shoplifting losses are a major concern in any retail environment. As a rule, tightly sealed clamshell blisters

The switch is on to mass-market cosmetics—and in a big way.

Clarion blister pack makes a loud sound when torn open, partly to deter shoplifting.

make it nearly impossible to steal the product without stealing the package. And stuffing a 3×6-inch carded blister into a purse is more difficult than dropping an unpackaged nail-color bottle into a pocket. But complex packaging also poses a problem for product purchases at home.

One recent development—a zip-open clamshell blister—attempts to solve both these problems. The RF-sealed package for Clarion powdered blushes has a perforated back that easily tears open, boosting consumer convenience. But, tearing open the blister in this way also produces a loud "braaap" sound—a deterent against shoplifting.

Scanning, casing

Packaging details in retailer warehouses and distribution centers are just as important as those in the store. With such huge volumes of merchandise moving through a mass-retailer such as Kmart or Wal-Mart, bar codes on shipping cases and on individual cosmetics shelf packs are essential.

When Maybelline sought to reduce shelf-pack costs by moving carton printing in-house, its customers demanded that UPC codes be maintained. "Retailers open the case, hit the codes with a scan gun and immediately know what they have," says Jason Gaede, a Maybelline engineer.

Shelf packs are small paperboard cartons that hold three, four or six individual packages and are usually labeled as fractions of a dozen—¼ or ⅓ dozen, for example. Shelf packs supply retailers with just the right amount of a particular item to fill a peg on a display. Because about one-third of retailers receive broken-case lots—or orders of a product broken down into amounts less than a full case—shelf packs also help cut down on in-transit product damage.

"Some [cosmetics packagers] ship merchandise directly to the stores," says a Los Angeles-based HBA buyer. "We have three warehouses. This is more cost-effective for us. With smaller packs, there is less handling by the warehouse, less chance of damage."

Warehouse efficiency is a vital concern to mass-merchandisers. Retailers are striving to tighten the loop between vendor orders and delivery. They are adopting the same just-in-time techniques to distribution that product makers now apply to manufacturing. Bar codes help make this possible.

Concern for the environment is being felt throughout retailing. A primary example is Wal-Mart's attempt to stock its shelves with so-called "green products"—a policy begun by the late Sam Walton in 1989.

This concept has been taken to its ultimate by Anita Roddick and her Body Shop chain of cosmetics outlets. Here, all packaging must be lightweight, unbreakable and strong enough to withstand distribution and reuse.

Reduce it, reuse it

The Body Shop can teach a few things to cosmetics makers about source-reduced packaging. In primary packaging, sometimes "the simpler the better" is a rule to design by. Fewer packaging components make the product easier to get at while answering consumer complaints about overpackaged cosmetics. Notably, PACKAGING's exclusive 1992 Consumer Survey found that almost 65% of respondents called cosmetics overpackaged.

For retailers, reusable packaging can extend to corrugated cases as well. Strippable case-sealing tapes allow shipping cartons to stay in circulation longer. These tapes have a reinforced layer that retailers can peel away, leaving the case undamaged. It can then be reused, resealed or more easily recycled because noncellulosic materials have been removed.

By individually analyzing retailer needs and responding accordingly, cosmetics packagers can tailor their "silent salesmen on the shelf" to be a true success—for consumer and retailer alike. ■

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Outstanding	513
Above Average	514
Average	515
Below Average	516

PACKAGE AS ARTIFACT: WHEN PRICE IS NO OBJECT

In magazine ads the bottle looks like a piece of ancient pottery washed up by the sea. And that's exactly the effect marketers at Paul Sebastian wanted to achieve for the packaging of designer Alexander Julian's new Womenswear fragrance.

Using a stock clear glass bottle—and a very expensive hand-painting and etching process—they were able to introduce the new fragrance in a bottle that's generating as much interest as the fragrance product itself.

"The uniqueness of the package for this fragrance introduction has meant the difference between success and failure," says Rick Shields, Sebastian's director of purchasing and product development. "We wanted the look and feel of an artifact. Eventually we'll streamline the process somewhat, but hand-painting and etching are the only way to achieve that look right now."

Shields adds that finding two companies who had the expertise to tackle the hand-decorating was a difficult task. "Many companies we approached took one look at the prototype and said, 'No thanks, we'll pass,' " he says.

Heavy-metal-free paints are applied to the clear bottles. Each is then fired, acid-etched, then fired again. Custom caps are matched to the bottle with various iridescent and gold-leaf finishes. A round pressure-sensitive label is blown onto the base of the bottle. No other label is used.

Marketers find that bottles from the same firing differ from each other. They don't mind. "We *want* variation," says Shields.

—Melissa Larson

C1850-1A

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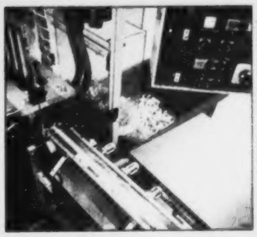
Find Out Who Won: The Votes Are In For 7th Annual Innovator Awards

Choices Grow In Machinery For Drug Blisters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Have Hot-Fill PET Bottles Lived Up To Their Promise?

How To Design A Turnkey Line

PACKAGING

BREAKING NEWS

IoPP corrugated survey shows need for more education

The Institute of Packaging Professionals says results of its recent Edge Crust Test Survey reveal a need for further education regarding changes in the way corrugated can be specified.

Although 83% of IoPP members who responded to the association's survey said they were familiar with the recent changes to Item 222 of the National Motor Freight Classification and Rule 41 of the Uniform Freight Classification, 72% said they would benefit from assistance in specifying ECT-certified board.

"Individual comments from end users indicate that many survey respondents understand exactly what to expect from ECT-certified board," says John B. Cudahy, IoPP manager of program and marketing services. "But based on the survey results, the vast majority of IoPP members do not completely understand the rule change. Eighteen months after the change, there still seems to be significant misunderstanding about what these boxes are and what they are not."

Many of the survey respondents said they believed they would benefit by switching from Mullen-certified to ECT-certified corrugated, but did not agree as to what those benefits were. Some said they thought ECT-certified board was superior in compression strength. Some said they liked it because it saved money. Others cited environmental concerns.

"Board certified to ECT minimum values is not necessarily high-performance board," Cudahy tells PACKAGING, "but for some reason many people think they are getting better compression strength from ECT. That just isn't so."

Cudahy warns that ECT minimum values can easily be misinterpreted as standards. The minimum values are set by carriers and do not take into consideration warehousing requirements of any particular product.

"To select a board strictly on the basis of cost savings would be to defeat the whole purpose of creating the alternative board," Cudahy says. "But unfortunately that's what some [end-user] companies are doing."

Many responding to the survey said they had switched to ECT-rated board because their suppliers had stopped offering Mullen-certified board.

An educational task force composed of representatives from IoPP, the Association of Independent Corrugated Converters and the Fibre Box Association plans to release a comprehensive, informative brochure later this year. The brochure is expected to describe the changes in detail, what they mean and what they can and cannot do to improve packaging performance.

"It may take two or three years to fully educate those who do not yet understand the benefits of ECT as an alternative rather than a requirement," Cudahy says.

FTC offers guidelines to prevent misleading environmental claims

The Federal Trade Commission has issued guidelines to help reduce consumer confusion and prevent false or misleading environmental claims.

The Guides for the Use of Environmental Marketing Claims announced by Janet Steiger, FTC chairwoman, at a congressional hearing in Washington, D.C., are designed to "protect consumers and to bolster their confidence in environmental claims and to reduce manufacturers' uncertainty about which claims might lead to FTC law-enforcement action, thereby encouraging marketers to produce and promote products that are less harmful to the environment."

The guidelines focus on the use of such terms as recyclable, degradable, environmentally friendly and ozone safe. Although the commission has not rigidly defined such terms, the guidelines recommend that environmental claims be substantiated by competent and reliable evidence.

Based on a review of data obtained during FTC investigations, hearings and written comments from the public, the guidelines are not enforceable as law. Nor do they preempt state and local laws or regulations. They do, however, provide collective administrative interpretations of laws administered by the FTC. The guidelines focus on how consumers are likely to interpret various environmental claims and identify types of claims that should be explained or qualified to avoid deceiving consumers.

According to the guidelines, it must be clear whether environmental claims apply to the product, to the package or to a component of either one. And qualifications and disclosures should be sufficiently clear and prominent to prevent deception.

The commission will request comments on how the guidelines are working after three years.

Design firm survey shows plateau in consumer eco-concern

Design firm Gerstman & Meyers, New York City, says its fourth annual survey of consumer opinion about the environment shows overall concern to be leveling off.

Herbert M. Meyers, managing partner of the firm, says, "The significant increase we saw in consumer concern for the environment two years ago has obvi-

PACKAGING's Breaking News is prepared just days prior to publication. Please fax late-breaking news to the attention of Greg Erickson, editor in chief, at (708) 635-6856.

BREAKING NEWS

MOST IMPORTANT ENVIRONMENTAL ISSUE

	1989	1990	1991	1992
Consumer Solid Waste	12%	25%	25%	19%
Air Quality	30	27	27	24
Water Quality	15	10	13	13
Ozone Layer	14	10	9	3
Oil Spills	3	2	2	1

Source: Gerstman & Meyers

ously leveled off. This is not surprising considering the fact that there are still no national guidelines for marketers to follow and a growing concern for other economic and business problems. But the fact that the level of concern has stabilized proves that the issue is still present in the minds of consumers."

For the fourth year in a row the survey has shown that solid waste is one of the two most important environmental issues to consumers and packaging continues to be seen as a contributor. Among the packages seen as most harmful by respondents to the G&M survey are steel juice cans, toothpaste pumps, microwavable food trays and plastic bottles for soft drinks and ketchup.

Says Meyers, "Based on the results of our survey, consumers are telling us that they are dissatisfied with the slow pace of environmentally responsive solutions. Their perception is that business and government are not seriously addressing the issues. Brands that take no action or inappropriate action will lose consumer confidence and ultimately market share."

In conducting the survey, G&M questioned 319 female heads of household aged 21-54. The research was fielded by Joel Benson Associates.

Potato chips bow in 'Bowl Bag'

How's this for convenience? New pouch packages for Curtis-Burns' Hiland Potato Chips not only feature tear-string reclosable zippers, but the bag can also act as a serving bowl.

Designed and converted by Curwood Inc. using metallized barrier film, the pouch's graphics are printed sideways so that presentation on store shelves is horizontal rather than vertical. Hiland's form-fill-seal equipment was modified by Hayssen to allow Fresh Trak zippers from Presto Products to be applied in-line along the side of the pouch. The moisture-retarding film is flexographically printed in six colors.

International Paper buys manufacturing facility in Poland

International Paper has announced its purchase of the largest manufacturer of white papers in Poland, giving IP its first manufacturing location in Eastern Europe.

The sale represents one of the largest capital commitments by a U.S. company in Eastern Europe since the beginning of privatization in that part of the world.

John A. Georges, chairman and chief executive officer of IP, termed the purhcase "an excellent strategic asset well-suited for domestic expansion and export development."

Mead spends $34 million, triples package recycling

Mead Corporation has announced plans to invest $34.1 million to expand the recycling capabilities of its coated- paperboard mill in Russell County, Ala., which manufactures beverage packaging containers.

Construction is underway on the Mead Coated Board Div.'s new post-consumer recycling plant, which when completed next year is expected to use 150,000 tons a year of old corrugated containers and used beverage cartons recovered from the solid-waste stream. This will increase Mead's use of recovered fiber to 225,000 tons a year and allow the company to increase the percentage of recycled fiber in its paperboard.

Alusuisse-Lonza acquires New Jersey maker of plastic trays

Swiss-based Alusuisse-Lonza Group, which specializes in aluminum, chemicals and packaging, has entered into a contract to acquire Therma-Plate Corp. of South Plainfield, N.J., a leading producer of plastic trays.

Founded in 1988, Therma-Plate Corp. has 140 employees and sales revenue of $45 million. The present management will continue to be closely associated with the company's development.

Alusuisse-Lonza recently acquired Dutch company Papier-Metaal, a leading producer of trays for processed food in Europe. Alusuisse-Lonza's packaging division comprises 15 companies in the United States and Europe with 5,500 employees.

Klöckner Hänsel Tevopharm joins Klöckner Bartelt

Klöckner Hänsel Tevopharm, N.A., located in Fairfield, N.J., has joined Klöckner Bartelt Inc. headquartered in Sarasota, Fla.

Klöckner Bartelt president Charles C. Brown, says, "The addition of this new division and its move to Sarasota strengthens the company's commitment to its North American customers, particularly in the confectionery and bakery industries."

Klockner Hansel Tevopharm equipment will soon be manufactured at the Sarasota plant, consolidating the parts manufacturing capabilities of both lines. The new division will be responsible for North American sales and marketing as well as service and support.

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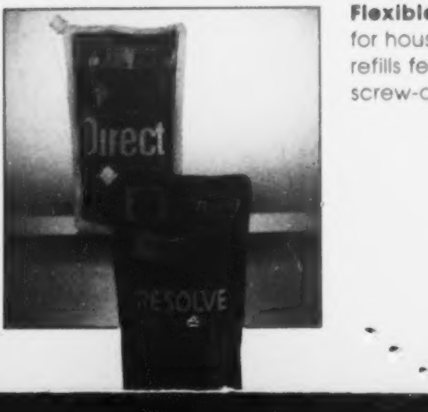
Pack Expo 92 delivers the latest in technology and information. PACKAGING's preview issue helps you get a jump on pre-show planning.

PACKAGING'S
1992
INNOVATOR AWARDS

Award winners show innovation and creativity with new packaging technology and designs. Page **54**

EPS loose-fill cushioning bears the challenge of its competitors. Will its prominence last? Page **32**

Clear PET bottle for sports drink is run on a new filling line that was designed to grow with product. Page **44**



Flexible stand-up pouches for household-care product refills feature resealable screw-cap closures. Page **15**

Among today's concerns, packaging waste is 'a minor issue'

Mary O'Grady
Research Manager
Cahners Publishing Co.

The Persian Gulf crisis . . . AIDS . . . the upcoming presidential election . . . the recession . . . the L.A. riots . . .

With such issues having faced consumers, it's evident that the problem of packaging waste might be overshadowed. In an effort to determine how concerned consumers are with different issues, PACKAGING posed the question in its exclusive 1992 Consumer Survey.

Despite continuing unrest and politically motivated bloodshed in some parts of the world, our survey reveals reduced concern over the threat of war. Only 67.8% of our survey respondents say they are very or greatly concerned about the threat of war this year compared to 86.5% in 1991. Declining concern for this issue, however, does not seem to have resulted in increasing worry over other issues facing Americans.

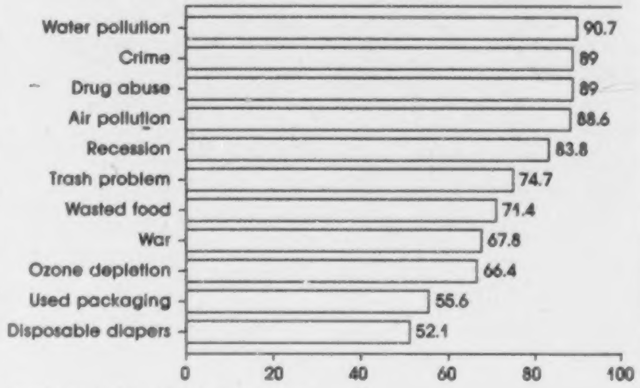
Consumers appear to be focusing on matters that touch closer to home. The seemingly endless recession, for example, having a direct impact on Americans' pocketbooks, is the issue of most growing concern—up 5.1% from 1991.

This election season, protecting the environment appears likely to be a campaign issue. Yet our survey respondents seem to be saying this issue can be overemphasized. The level of concern over the trash problem is basically unchanged this year while concern over used packaging has declined from 1991. In fact, the issue of what to do with used packaging is near the very bottom of our list of 11 national issues.

WHAT TO DO ABOUT PACKAGING WASTE RATES LOW AMONG CONSUMER WORRIES

Question: For each of the following, please indicate how concerned you are with these issues.

Percent saying "very" or "greatly" concerned



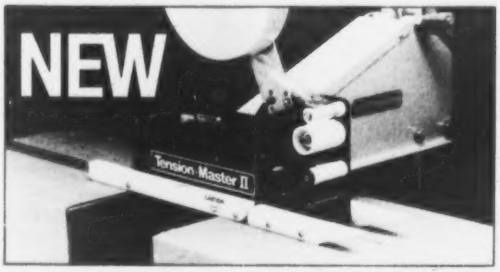
Source: 1992 PACKAGING Consumer Survey

More enviro-concerns

Among the few environmental issues gaining in importance to consumers are water and air pollution, up mildy by 1.5% and 3.7%, respectively.

What demographic group is most concerned about the packaging waste problem? Older Americans age 60 and above. Almost 60% in this group say they are very concerned about used packaging, and nearly 79% report great concern about the trash problem.

In tracking consumer packaging preferences for eight years, PACKAGING's Consumer Survey has become a highly credible storehouse of vital marketing information. Each month this column examines a portion of the survey results up close. It's part of our commitment to helping you do your job better.



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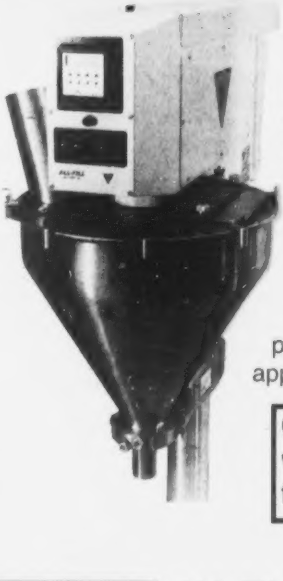

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ENVIRONMENTAL NEWS

Recycled PET New Weapon In Cola Wars

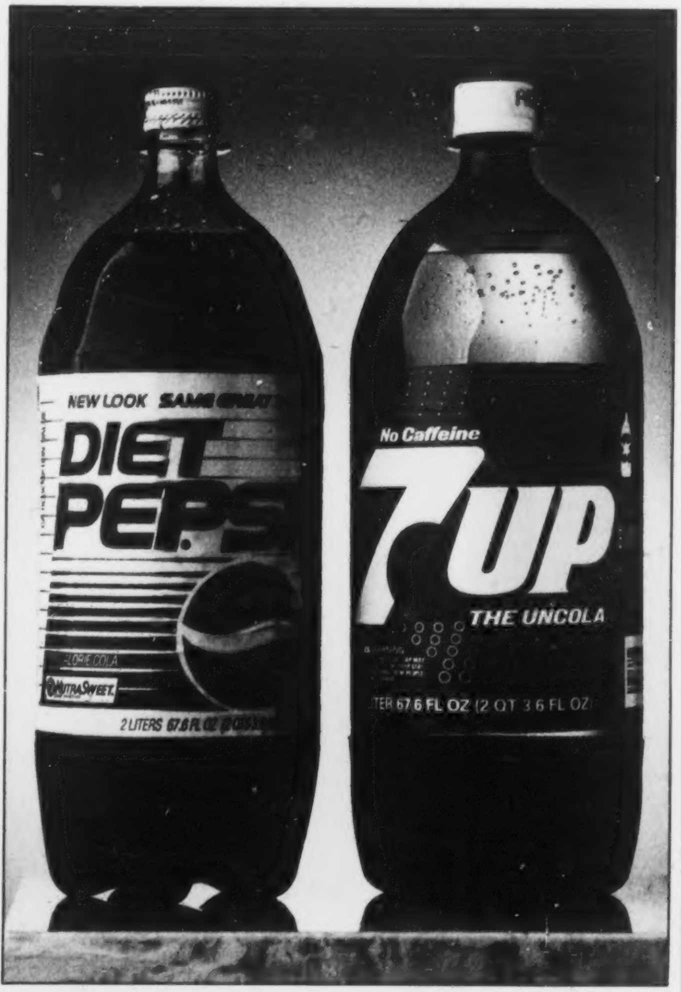
It's an environmental packaging advance, and it certainly won't hurt in the continuing fight against Coke. PET bottles for Pepsi-Cola and 7UP containing 25% recycled resin have made their debut in Sacramento, Calif., as part of a test market.

"Every clear plastic bottle containing Pepsi, Diet Pepsi, Caffeine-Free Pepsi and Diet Caffeine-Free Pepsi on shelves in the Sacramento area will be made from PET with recycled content," says Jim Keown, vice president of marketing for Pepsi-Cola West. "Sacramento is an important test for Pepsi and for the future of this kind of recycled packaging."

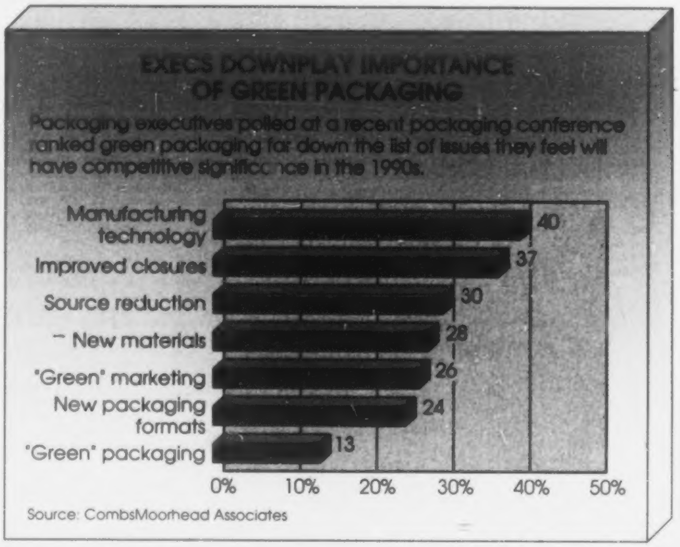
He continues, "Surveys suggest that Northern California consumers care a great deal about the environment. Sacramentans' response to purchasing Pepsi in recycled containers will be a strong indication of the demand for this kind of packaging in the rest of the country."

Says Bart Brodkin, president of 7UP, "We're pleased that we are now able to use recycled-content PET bottles to package our product. We know our customers will be as pleased as we are with this environmental advancement, which demonstrates our commitment to developing markets for recycled plastics."

Johnson Controls Inc. blowmolds the bottles from polymer supplied by Eastman Chemical Co. For more information from Johnson Controls, circle **241**. For more information from Eastman Chemical, circle **242**.



Recycled-content PET two-liter bottles for Pepsi and 7Up are on Sacramento store shelves. The area was chosen because of heightened consumer concern for the environment.


EXECS DOWNPLAY IMPORTANCE OF GREEN PACKAGING

Packaging executives polled at a recent packaging conference ranked green packaging far down the list of issues they feel will have competitive significance in the 1990s.

Source: CombsMoorhead Associates

Tale Of Two Surveys: Execs Differ On Packaging

Two recent surveys of corporate executive attitudes about the importance of environmentally friendly packaging have yielded two different spins.

Brand identity consultants Gerstman + Meyers Inc. mailed questionnaires to executives in a wide variety of companies. Of the respondents, 62% say that solid waste is the most significant environmental issue they face and 41% say they currently are addressing solid waste packaging issues.

However, Chicago-based business research firm Combs-Moorhead Associates polled attendees of Packaging Strategies '92, recently held in Atlanta, and found that green packaging ranks far down the list of issues to which respondents assign a high competitive advantage in the 1990s.

While 40% of respondents say that new manufacturing technologies are important for competitive reasons and 37% say improved closures are important, only 13% assign such importance to "green" packaging.

For more information on the Gerstman + Meyers survey, circle **243**. For more data from CombsMoorhead, circle **244**.

NFPA: RCRA Revisions Still Unfair To Food Industry

The scaled-back recycling provisions added to the Resource Conservation and Recovery Act renewal bill now awaiting full House of Representatives debate still place an unfair burden on the food industry, according to officials of the National Food Processors Association.

However, plastics industry sources say they can live with the new proposals, which limit plastics recycling requirements to bottles and jars between eight ounces and five gallons. The changes in recycling language were made by the sponsor of the entire bill, Rep. Al Swift, D-Wash.

"Congress has narrowed the focus of this legislation down to cans, jars, bottles and other containers widely used by the food industry," says John Cady, NFPA president. Cady notes that such materials account for only 8% of the solid waste stream.

"I cannot understand the premise of this approach," he continues. "This is a bill that will not reduce solid waste, that focuses on an issue that poses no risk to human health or the environment, that could be as costly as the Clean Air Act, and that nationalizes garbage regulation, all during a recession."

The Environmental Protection Agency estimates the potential cost to consumers of the RCRA legislation could range up to $30 billion a year. EPA has also called packaging "an area of solid waste management that pre-

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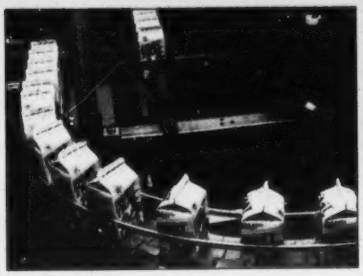

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He just didn't look the type

I saw R. Bruce Holmgren for the last time through the glass of a revolving door. It was a mere six months ago. Bruce was dashing into a county courthouse to begin another day as assistant public defender; I was on my way out, having handed in my juror's badge.

As if in a movie, we both did a double-take and spun the door around again, mouthing the words, "Well, I'll be darned!" or something like that.

We jumped out onto the sidewalk and stood in a snowy March wind. Bruce's right hand gobbled up mine. He was wearing a shapeless overcoat and a tweed hat that looked comically small. I noticed his fancy briefcase: It was the one given to him by the staff of PACKAGING at his retirement party last year.

Cold as the weather was, Bruce engaged me in a 10-minute conversation about "this particular period of vibrancy for the packaging field," the healthy appearance of PACKAGING magazine despite tough economic times, and the court case I had heard.

He did so in typical Bruce fashion—animatedly, seeming to have perfected the technique of talking and inhaling at the same time. Those of you who ever heard him make a speech know what I mean: Halfway through, you probably turned to the person next to you and whispered in amazement, "Doesn't this guy ever *breathe*?"

His goal, I'm convinced, was to say everything he wanted to say without squandering anyone's time.

Invited to speak just about everywhere he went as a goodwill ambassador for the packaging field, Bruce could fashion an address filled with information and entertainment at a moment's notice—and time it to the minute. Every paragraph had a beginning, a middle and an end. I don't think he ever uttered an ungrammatical sentence. And he never wore out his welcome.

His writing had the same feeling. As his editor for a short time, I regularly found myself in the difficult position of having to cut his material to fit the available space without removing all the "Bruce-isms" that gave his work its inimitable style. He cared little for specific turns of phrase, arguing only when he thought I'd deleted a significant detail.

Bruce was, if nothing else, dedicated to detail. Everything he set out to do he did completely, giving it all of his considerable energy. That attitude was the sole reason he chose not to accept a part-time consulting position with PACKAGING after his retirement. "Packaging is a field that one has to be in 24 hours a day or not at all," he said, and he firmly believed it.

A man of great faith, Bruce was also a man of great humor, and this extended to the topic of mortality. His daughter called me the week of his death and said, "Dad wouldn't want you to make a fuss about this. After all, he used to call dying 'dropping the carcass.' "

Sorry. We feel like making a fuss. The field of packaging, Cahners Publishing Co. and the staff of this magazine, I think it safe to say, are still in a state of shock a month after Bruce's passing. It came as such a surprise.

At the age of 72, Bruce was far too young to be thought of as old. Death is a part of life. It happens to us all. But somehow R. Bruce Holmgren didn't look the type.

Greg Erickson

EDITOR IN CHIEF

THE CONSUMER CONNECTION

Recycling used packaging is a bipartisan concern

Mary O'Grady
Research Manager
Cahners Publishing Co.

With the Presidential election less than a month away, we thought it would be fun to look at our 1992 Consumer Survey from a party-line perspective.

We asked our 750 respondents this year to indicate their political affiliation. We wanted to know whether there were big differences between Democrats and Republicans when it came to packaging preferences. As it turns out, the Donkeys and the Elephants are really more like people. Our poll indicates that consumers in both parties share the same penchants when it comes to food, pharmaceutical and personal-care packaging.

On the environmental side, the recycling of used packaging is of great concern to Republicans and Democrats alike. More than 8 out of 10 respondents of either political persuasion consider this issue important.

Although more Democrats report strong concern for the trash problem in general—82.7% compared to 66.8% of Republicans—both parties agree on the method in which new recycling programs should be financed. Only 5.7% of Democrats and 3.2% of Republicans think raising federal income taxes is the answer.

The most popular alternative? About 60% in both parties choose a curbside pickup charge.

A few other tidbits: Our poll shows that the top two social problems of concern to Democrats are water pollution and drug abuse. Top of the list for Republicans? Crime.

In tracking consumer packaging preferences for eight years, PACKAGING's Consumer Survey has become a highly credible storehouse of vital marketing information. Each month this column examines a portion of the survey results up close. It's part of our commitment to helping you do your job better.

DEMOCRATS AND REPUBLICANS VOTE ON PACKAGING ISSUES

Question: How concerned are you with these issues?

Percent saying "extremely" or "very"

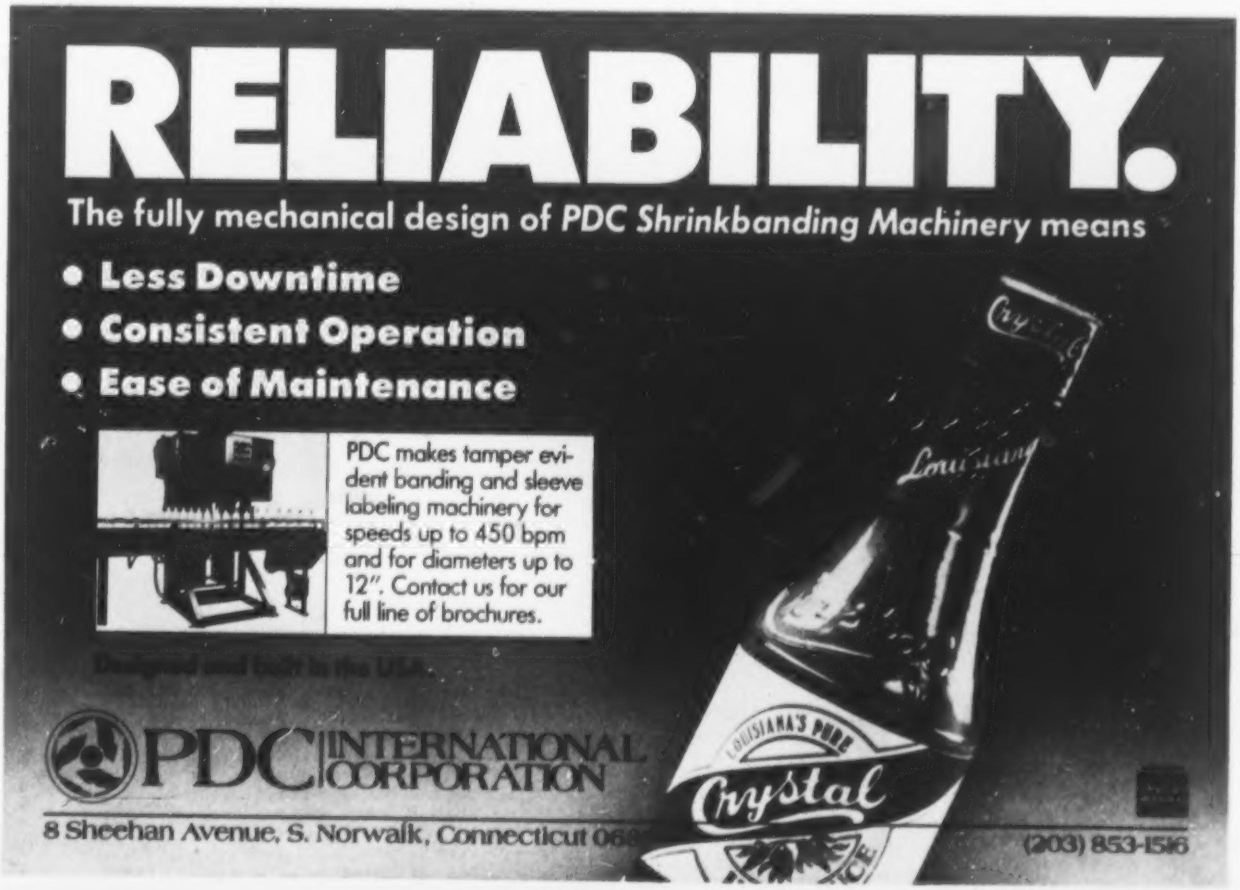
	Democrats	Republicans
Water pollution	94.3	88.8
Crime	91.0	89.6
Drug abuse	94.3	88.8
Recycling used packaging	85.3	84.4
The trash problem	82.7	68.8

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

Question: Who should fund new recycling programs?

	Democrats	Republicans
By per bag/per can charges for curbside trash pickup	59.0	62.8
Municipal, state or federal gov't.	37.3	33.2

Source: 1992 PACKAGING Consumer Survey



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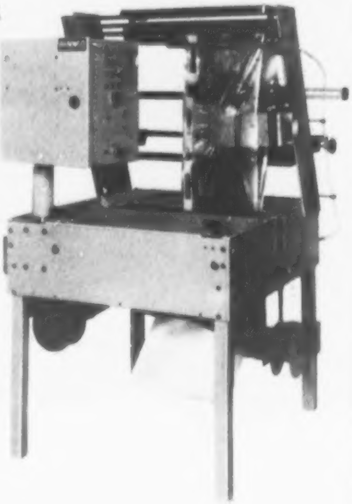

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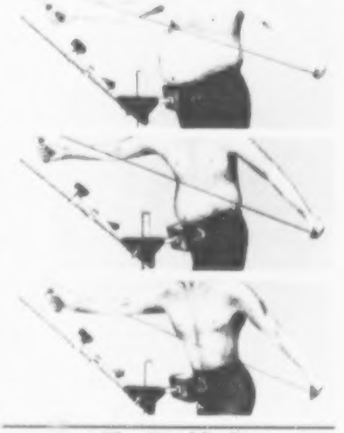

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PEOPLE

The Institute of Packaging Professionals has elected **H. Lincoln Jepson**, president of New Jersey Machine, its 1992-93 president. Also elected were first vice president, **Edward Church**, Lansmont Corp.; executive vice presidents **Robert Forsyth**, National Starch and Chemical and **Kenny Marengo**, CPP, Miner Sales Co.; and **William Pflaum**, secretary/treasurer. Members appointed to advisory positions on the Executive Committee and Board are: **James Hills**, Lakso; **Harold Hughes**, Michigan State University; **Robert Luciano**, Luciano Packaging Technologies; **Linda McCall**, Plastic Packaging; and **James McTiernan**, Hoffmann-LaRoche. Elected vice presidents named to their respective areas of responsibility are: technical activities, **Stewart Bolton**, Kraft/General Foods; public affairs, **James Trimm**, Mebane Packaging; publications, **Mark Wygonik**, CPP, Flexible Packaging Association; professional development, **Alan Skeddle**, H.J. Heinz Co.; membership, **Robert Harding**, CPP/MH, Consultant; chapter relations, **Kevin Fleming**, Gerrard Packaging Co.; certification, **Tom Mrozek**, CPP, General Mills; education, **Mary Amini**, Kraft/General Foods; directories, **Paul Markert**, Mefco; and exhibits, **Jim Cage**, Hunt Wesson . . . **James Barner** has been selected Jefferson Smurfit Corp.'s 1991 Employee of the Year. A design/packaging engineer with the company's Container Div., Barner is the on-site manufacturing liaison at General Electric Appliance Co.'s Louisville, Ky., manufacturing facility . . . **Daniel Goodwin** has been named chairman of the Department of Packaging Science in Rochester Institute of Technology's College of Applied Science and Technology . . . International Paper has promoted **Freddie Bateh** manager of marketing communications and market research for its Bleached Board Div.

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